

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	580	((optical or laser or imformation) near5 (medium or media or disk\$1 or disc\$1)) and (cyanine or methine)	JPO	OR	ON	2005/12/08 13:54
L2	17	((optical or laser or imformation) near5 (medium or media or disk\$1 or disc\$1)) and (trimethine)	JPO	OR	ON	2005/12/08 14:55
L3	484	((optical or laser or imformation) near5 (medium or media or disk\$1 or disc\$1)) and (cyanine)	JPO	OR	ON	2005/12/08 14:30
L4	102	I3 and (s or sulfur or o or oxygen or oxazol\$6 or thiazol\$6)	JPO	OR	ON	2005/12/08 13:55
L5	382	I3 not I4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/12/08 14:34
L6	8	I5 and (blue or green or argon or hecd or "ar+" or "he-cd" or (helium near5 cadmium))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/12/08 14:32
L7	8	I5 and ("488" or "422" or "425" or "457" or "461" or "325" or blue or green or argon or hecd or "ar+" or "he-cd" or (helium near5 cadmium))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/12/08 14:32
L8	180	I5 and @ad<"19900101"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/12/08 14:34
L9	33	((optical or laser or imformation) near5 (medium or media or disk\$1 or disc\$1)) and (trimethine)	EPO; DERWENT; IBM_TDB	OR	ON	2005/12/08 14:55

\$%^STN:HighlightOn= ***:HighlightOff=***

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TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 SEP 09 ACD predicted properties enhanced in REGISTRY/ZREGISTRY
NEWS 4 OCT 03 MATHDI removed from STN
NEWS 5 OCT 04 CA/CAplus-Canadian Intellectual Property Office (CIPO) added to core patent offices
NEWS 6 OCT 13 New CAS Information Use Policies Effective October 17, 2005
NEWS 7 OCT 17 STN(R) Anavist(TM), Version 1.01, allows the export/download of CAplus documents for use in third-party analysis and visualization tools
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| | |
|------------|---|
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| NEWS WWW | CAS World Wide Web Site (general information) |

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FILE 'HOME' ENTERED AT 15:25:35 ON 08 DEC 2005

=> FIL STNGUIDE
COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL
ENTRY SESSION
0.21 0.21

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LAST RELOADED: Dec 2, 2005 (20051202/UP)

=> FIL HOME
COST IN U.S. DOLLARS

FULL ESTIMATED COST

| | SINCE FILE ENTRY | TOTAL SESSION |
|--|------------------|---------------|
| | 0.06 | 0.27 |

FILE 'HOME' ENTERED AT 15:25:45 ON 08 DEC 2005

=> file reg
COST IN U.S. DOLLARS

| | SINCE FILE ENTRY | TOTAL SESSION |
|---------------------|------------------|---------------|
| FULL ESTIMATED COST | 0.21 | 0.48 |

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DICTIONARY FILE UPDATES: 7 DEC 2005 HIGHEST RN 869534-51-0

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* available and contains the CA role and document type information. *
*

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=>
Uploading c:\program files\stnexp\queries\10657205thioazoles.str

L1 STRUCTURE uploaded

=>
Uploading c:\program files\stnexp\queries\10657205oxazoles.str

L2 STRUCTURE uploaded

=> s 11 sss full
FULL SEARCH INITIATED 15:26:35 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 17382 TO ITERATE

100.0% PROCESSED 17382 ITERATIONS 12 ANSWERS
SEARCH TIME: 00.00.01

L3 12 SEA SSS FUL L1

=> s 12 sss full
FULL SEARCH INITIATED 15:26:40 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 6705 TO ITERATE

100.0% PROCESSED 6705 ITERATIONS
SEARCH TIME: 00.00.01

3644 ANSWERS

L4 3644 SEA SSS FUL L2

=> file caplus

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 322.66 | 323.14 |

FILE 'CAPLUS' ENTERED AT 15:26:57 ON 08 DEC 2005

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FILE LAST UPDATED: 7 Dec 2005 (20051207/ED)

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=> s 13

L5 21 L3

=> s 14

L6 2443 L4

=> s (optical or laser or information) and 15

852210 OPTICAL

19 OPTICALS

852218 OPTICAL

(OPTICAL OR OPTICALS)

507725 LASER

158383 LASERS

520833 LASER

(LASER OR LASERS)

390727 INFORMATION

2981 INFORMATIONS

393115 INFORMATION

(INFORMATION OR INFORMATIONS)

L7 3 (OPTICAL OR LASER OR INFORMATION) AND L5

=> d all 1-3

L7 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:685872 CAPLUS

DN 139:221678

ED Entered STN: 03 Sep 2003

TI ***Optical*** recording material containing dye salt from cyanine dye cation and azo-metal chelate anion

IN Ueno, Yasunobu; Sato, Tsutomu; Tomura, Tatsuya; Noguchi, Shu

PA Ricoh Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41M005-26

ICS G11B007-24; C09B023-00; C09B045-44

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 41

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--------------------|------|----------|-----------------|----------|
| JP 2003246149 | A2 | 20030902 | JP 2002-50403 | 20020226 |
| PRAI JP 2002-50403 | | 20020226 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|------------------------------------|
| JP 2003246149 | ICM | B41M005-26 |
| | ICS | G11B007-24; C09B023-00; C09B045-44 |

OS MARPAT 139:221678

GI

/ Structure 1 in file .gra /

AB The material comprises a support coated with a recording layer contg. a dye salt of a cyanine dye cation I [A, B = arom. ring; R9-10 = (un)substituted alkyl] and an azo-metal chelate anion from an azo compd. II [R1-8 = H, halo, nitro, cyano, OH, carboxy, amino, alkyl, aryl, alkylcarbonyl, arylcarbonyl, alkyloxycarbonyl, aryloxycarbonyl, alkylsulfonyl, arylsulfonyl, alkylthio, arylthio, alkylthioxy, arylthioxy, alkyloxy, aryloxy, alkylamino, arylamino, alkylcarbonylamino, arylcarbonylamino, alkylcarbamoyl, arylcarbamoyl, alkenyl, alkylsulfino, alkylaminosulfino, sulfo, these groups may be substituted; X = active H], and metal, metal oxide, or metal salt. The material shows good lightfastness and storage stability and is useful or DVD-R disk system using shorter ***laser*** beam.

ST ***optical*** recording material; salt cyanine dye cation azo metal chelate

IT ***Optical*** recording materials
(***optical*** recording material contg. dye salt from cyanine dye cation and azo-metal chelate anion)

IT 13963-57-0D, Aluminum acetylacetone, reaction products azo dye, salts with cyanine dye 14024-18-1D, Iron acetylacetone, reaction products azo dye, salts with cyanine dye 14284-89-0D, Manganese acetylacetone, reaction products azo dye, salts with cyanine dye 14284-92-5D, Rhodium acetylacetone, reaction products azo dye, salts with cyanine dye 15653-01-7D, Cerium acetylacetone, reaction products azo dye, salts with cyanine dye 18403-49-1D, salts with azo-metal chelate anion 18466-01-8D, salts with azo-metal chelate anion 20187-38-6D, salts with azo-metal chelate anion 21679-31-2D, Chromium acetylacetone, reaction products azo dye, salts with cyanine dye 21679-46-9D, Cobalt acetylacetone, reaction products azo dye, salts with cyanine dye 37069-75-3D, salts with azo-metal chelate anion ***46824-14-0D***, salts with azo-metal chelate anion 124710-31-2D, salts with azo-metal chelate anion 586390-36-5D, salts with azo-metal chelate anion 587878-51-1D, reaction products with metal compd., salts with cyanine dye 587878-52-2D, salts with azo-metal chelate anion 610311-36-9D, reaction products with metal compd., salts with cyanine dye 610311-37-0D, reaction products with metal compd., salts with cyanine dye 610311-38-1D, reaction products with metal compd., salts with cyanine dye 610311-39-2D, reaction products with metal compd., salts with cyanine dye 610311-40-5D, reaction products with metal compd., salts with cyanine dye

RL: DEV (Device component use); USES (Uses)

(***optical*** recording material contg. dye salt from cyanine dye cation and azo-metal chelate anion)

IT 587878-45-3DP, reaction products with metal compd., salts with cyanine dye

RL: DEV (Device component use); IMF (Industrial manufacture); PREP

(Preparation); USES (Uses)

(***optical*** recording material contg. dye salt from cyanine dye cation and azo-metal chelate anion)

L7 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:673692 CAPLUS

DN 139:205097

ED Entered STN: 28 Aug 2003
TI ***Optical*** recording material containing dye salt from azo-metal chelate and cyanine dye
IN 'Ueno, Yasunobu; Sato, Tsutomu; Tomura, Tatsuya; Noguchi, Osamu
PA Ricoh Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
IC ICM B41M005-26
ICS G11B007-24; C09B023-00; C09B045-20; C09B069-02
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 41

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--------------------|------|----------|-----------------|----------|
| JP 2003237240 | A2 | 20030827 | JP 2002-44862 | 20020221 |
| PRAI JP 2002-44862 | | 20020221 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|----------------|--|
| JP 2003237240 | ICM B41M005-26 | ICS G11B007-24; C09B023-00; C09B045-20; C09B069-02 |

OS MARPAT 139:205097

GI

/ Structure 2 in file .gra /

AB The material comprises a support coated with an ***optical*** recording layer contg. a dye salt comprising (A) an azo-metal chelate anion from an azo dye I [R1-6 = H, halo, nitro, cyano, OH, carboxy, amino, alkyl, aryl, alkylcarbonyl, arylcarbonyl, alkyloxycarbonyl, aryloxycarbonyl, alkylsulfonyl, arylsulfonyl, alkylthio oxy, arylthio oxy, alkyloxy, aryloxy, alkylamino, arylamino, alkylcarbonylamino, arylcarbonylamino, alkylcarbamoyl, arylcarbamoyl, alkenyl, these groups may be substituted] and a metal, metal oxide, or metal salt, and (B) a cyanine dye cation II (A, B = arom. ring; R7-8 = (un)substituted alkyl). The material shows good lightfastness, storage stability, is recorded and read by semiconductor ***laser*** beam with shorter wavelength, and suited for large capacity WORM disk.

ST ***optical*** recording material azo metal chelate cyanine dye

IT Azo dyes

Cyanine dyes

Optical recording materials

(***optical*** recording material contg. salt from azo-metal chelate and cyanine dye)

IT ***Optical*** disks

(write-once read-many; ***optical*** recording material contg. salt from azo-metal chelate and cyanine dye)

IT 13963-57-0DP, Aluminum acetylacetone, azo dye chelate, salts with cyanine dye 14024-18-1DP, Iron trisacetylacetone, azo dye chelate, salts with cyanine dye 14284-89-0DP, Manganese trisacetylacetone, azo dye chelate, salts with cyanine dye 14284-92-5DP, Rhodium tris(acetylacetone), azo dye chelate, salts with cyanine dye 14284-96-9DP, Titanium tris(acetylacetone), azo dye chelate, salts with cyanine dye 15653-01-7DP, Cerium tris(acetylacetone), azo dye chelate, salts with cyanine dye 18466-01-8DP, salts with azo-metal chelate 20187-38-6DP, salts with azo-metal chelate 21679-31-2DP, Chromium acetylacetone, azo dye chelate, salts with cyanine dye 21679-46-9DP, Cobalt acetylacetone, azo dye chelate, salts with cyanine dye

46824-14-0DP, salts with azo-metal chelate 52078-77-0DP, salts with azo-metal chelate 586390-20-7DP, metal chelate, salts with cyanine dye 586390-21-8DP, metal chelate, salts with cyanine dye 586390-23-0DP, metal chelate, salts with cyanine dye 586390-24-1DP, metal chelate, salts with cyanine dye 586390-25-2DP, metal chelate, salts with cyanine dye 586390-26-3DP, metal chelate, salts with cyanine dye 586390-27-4DP, metal chelate, salts with cyanine dye 586390-28-5DP, metal chelate, salts with cyanine dye 586390-30-9DP, metal chelate, salts with cyanine dye 586390-31-0DP, metal chelate,

salts with cyanine dye 586390-32-1DP, metal chelate, salts with cyanine dye 586390-34-3DP, metal chelate, salts with cyanine dye 586390-36-5DP, salts with azo-metal chelate 586390-37-6DP, salts with azo-metal chelate 586390-38-7DP, salts with azo-metal chelate 586390-39-8DP, salts with azo-metal chelate 586390-40-1DP, salts with azo-metal chelate 586390-41-2DP, salts with azo-metal chelate 586390-42-3DP, salts with azo-metal chelate 586390-43-4DP, salts with azo-metal chelate 586390-44-5DP, salts with azo-metal chelate 586390-45-6DP, salts with azo-metal chelate 586390-46-7DP, salts with azo-metal chelate 586390-47-8DP, salts with azo-metal chelate 586390-48-9DP, salts with azo-metal chelate 586390-49-0DP, salts with azo-metal chelate 586390-50-3DP, salts with azo-metal chelate 586390-51-4DP, salts with azo-metal chelate 587868-95-9DP, metal chelate, salts with cyanine dye 587868-96-0DP, metal chelate, salts with cyanine dye 587869-00-9DP, metal chelate, salts with cyanine dye
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (***optical*** recording material contg. salt from azo-metal chelate and cyanine dye)

L7 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2003:17951 CAPLUS
 DN 138:262613
 ED Entered STN: 09 Jan 2003
 TI Silver halide photographic material
 IN Lifshits, E. B.; Medvedeva, A. V.; Podlesnykh, V. N.; Silaev, E. A.; Ushomirskii, M. N.; Formina, L. V.
 PA Zakrytoe Aktsionerno Obshchestvo Nauchno-Proizvodstvennoe Obedinenie "FOMOS", Russia
 SO Russ., No pp. given
 CODEN: RUXXE7
 DT Patent
 LA Russian
 IC ICM G03C001-08
 ICS C09B023-00
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1
 PATENT NO. KIND DATE APPLICATION NO. DATE

 PI RU 2184387 C1 20020627 RU 2000-132281 20001222
 PRAI RU 2000-132281 20001222

CLASS
 PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

 RU 2184387 ICM G03C001-08
 ICS C09B023-00

GI

/ Structure 3 in file .gra /

AB A high sensitivity AgBrI material (microcrystal size 0.15-0.5 .mu.m, AgI content 2-5 mol%) which is particularly useful for space photog. comprises a support coated on one side with a gelatin counter-layer contg. antihalation dyes and on the other side with silver halide emulsion layer. The emulsion contains: (a) spectral sensitizers I (A = H, lower alkyl; R and R1 = lower alkyl, (CH₂)₃SO₃-; Z = .beta.-naphtho-, 4,5- benzo- or B-Ph (B = H, alkyl, halogen); Z1 = .beta.-naphtho-, 4,5-benzo-, thieno[3,2]benzo-, 2,3-dimethylthiophene, B1-Ph (B1 = H, alkyl, alkoxy, aryl); or Z and Z1 are missing; X- = halogen or p-toluenesulfonyl; [K]⁺ = ammonium, trialkylammonium, pyridinium, 1,1'-diethyl-2,2'-quinonomonomethylicyanine, 3,3'-diethyl-oxacarbocyanine, 3,3'-diethylthiazoline-carbocyanine); (b) spectral sensitivity activator II (B and B1 = H, lower alkyl, halogen; m = 1, 2; n = 0-2; X- = perchlorate, halogen, p-toluenesulfonyl ion); (c) an antihalation and stabilizing agent III (R, R1 = lower alkyls). The light-sensitive counter-layer, and protective layer contain Bu acrylate-styrene-methacrylic acid copolymer. The above material has high resoln. power, optimized relation of

ST light-sensitivity to resln. power, and high ***information*** d.
IT photog material astronomy space
IT Photographic films
'Photographic sensitizers
Photographic stabilizers
(high sensitivity AgBrI material for space photog.)
IT 169223-07-8 502935-63-9 502935-68-4 502935-70-8
RL: TEM (Technical or engineered material use); USES (Uses)
(activator; high sensitivity AgBrI material for space photog.)
IT 25036-16-2, Butyl acrylate-styrene-methacrylic acid copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(high sensitivity AgBrI material for space photog.)
IT ***10525-27-6*** 55929-55-0 ***65087-25-4*** 68239-10-1
125306-79-8 139536-88-2 235416-50-9 501087-26-9 501087-28-1
502935-62-8 502935-64-0 502935-66-2 502935-67-3 502935-72-0
502935-76-4 502935-78-6 502935-80-0 502935-88-8 502935-91-3
RL: TEM (Technical or engineered material use); USES (Uses)
(spectral sensitizer; high sensitivity AgBrI material for space photog.)
IT 2654-52-6 14933-76-7
RL: TEM (Technical or engineered material use); USES (Uses)
(stabilizer; high sensitivity AgBrI material for space photog.)

=> s (optical or laser or information) and 16

852210 OPTICAL
19 OPTICALS
852218 OPTICAL
(OPTICAL OR OPTICALS)
507725 LASER
158383 LASERS
520833 LASER
(LASER OR LASERS)
390727 INFORMATION
2981 INFORMATIONS
393115 INFORMATION
(INFORMATION OR INFORMATIONS)

L8 322 (OPTICAL OR LASER OR INFORMATION) AND L6

=> s 18 and ((optical or laser or information) (5a) (med? or disk or disc or card))

852210 OPTICAL
19 OPTICALS
852218 OPTICAL
(OPTICAL OR OPTICALS)
507725 LASER
158383 LASERS
520833 LASER
(LASER OR LASERS)
390727 INFORMATION
2981 INFORMATIONS
393115 INFORMATION
(INFORMATION OR INFORMATIONS)

1841864 MED?
117403 DISK
58037 DISKS
147249 DISK
(DISK OR DISKS)

15130 DISC
3298 DISCS
17929 DISC
(DISC OR DISCS)
9230 CARD
5878 CARDS
12195 CARD
(CARD OR CARDS)

45433 (OPTICAL OR LASER OR INFORMATION) (5A) (MED? OR DISK OR DISC OR CARD)

L9 25 L8 AND ((OPTICAL OR LASER OR INFORMATION) (5A) (MED? OR DISK OR DISC OR CARD))

=> d all 1-25

L9 ANSWER 1 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:155469 CAPLUS
DN 142:249094
ED 'Entered STN: 24 Feb 2005
TI Hologram recording material composition, hologram recording material and hologram recording method
IN Takizawa, Hiroo; Inoue, Noriko; Akiba, Masaharu
PA Fuji Photo Film Co., Ltd., Japan
SO Eur. Pat. Appl., 84 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM G03F007-00
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

F&N.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | EP 1508833 | A2 | 20050223 | EP 2004-19952 | 20040823 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR | | | | |
| | JP 2005099751 | A2 | 20050414 | JP 2004-238077 | 20040818 |
| PRAI | JP 2003-298936 | A | 20030822 | | |
| | JP 2003-300059 | A | 20030825 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|---|
| | EP 1508833 | ICM | G03F007-00 |
| | EP 1508833 | ECLA | G03F007/00B3; G03H001/02 |
| | JP 2005099751 | FTERM | 2H049/CA30; 2K008/AA04; 2K008/BB06; 2K008/CC01;
2K008/DD12; 2K008/FF08; 2K008/FF17; 5D090/BB16;
5D090/CC01; 5D090/CC14; 5D090/DD01; 5D090/FF14;
5D090/KK09; 5D090/KK12; 5D090/KK15 |

AB To provide a compn. for a hologram recording material, a hologram recording material and a hologram recording method applicable to a high d. ***optical*** recording ***medium***, a three-dimensional display, a holog. ***optical*** element etc. and capable of attaining a high sensitivity, a high diffraction efficiency, a satisfactory storage property, a low shrinkage rate, a dry process, a multiplex recording property and a high recording d. An un-rewritable hologram recording method including a step in which a sensitizing dye absorbs light by an exposure to form an excited state, a chem. reaction step including a color forming reaction involving an electron transfer or an energy transfer from such excited state, and a hologram-forming step by such chem. reaction.

ST holog recording material compn sensitizing dye

IT Dyes

Holographic recording materials

(hologram recording material compn. and hologram recording method)

IT 92-84-2, Phenothiazine

RL: TEM (Technical or engineered material use); USES (Uses)
(electron donating compd.; hologram recording material compn. and hologram recording method contg.)

IT 102-54-5, Ferrocene ***905-96-4*** ***1054-00-8*** 1291-47-0
60804-74-2 60804-75-3 ***816453-45-9***

RL: TEM (Technical or engineered material use); USES (Uses)
(sensitizing dye; hologram recording material compn. and hologram recording method contg.)

L9 ANSWER 2 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:118427 CAPLUS

DN 142:207706

ED Entered STN: 10 Feb 2005

TI Two-photon-absorption foaming materials and three-dimensional photorefractive or ***optical*** recording ***media*** therewith

IN Takizawa, Hiroo

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 56 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03C001-54

ICS G11B007-24

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 41

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 2005037658 | A2 | 20050210 | JP 2003-274096 | 20030714 |
| PRAI JP 2003-274096 | | 20030714 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|---|
| JP 2005037658 | ICM | G03C001-54 |
| | ICS | G11B007-24 |
| JP 2005037658 | FTERM | 2H123/AD24; 2H123/AD30; 2H123/FA00; 2H123/FA18;
5D029/JA04; 5D029/JB11 |

AB Materials including two-photon-absorbing compds. (e.g., methine dyes, phthalocyanine dyes) and thereby leading gas-bubble formation are claimed. The gas bubbles may be of 50 nm-5 .mu.m dimension. The materials may further contain blowing agents. Photorefractive recording materials contg. the above, exhibiting extremely high spatial resoln., are also claimed.

ST foaming material two photon absorption photorefractive recording; spatial resoln two photon absorption dye recording; methine phthalocyanine two photon absorbing dye ***optical*** recording

IT Two-photon absorption
(nonresonant; two-photon-absorption foaming materials for 3D photorefractive recording media with high spatial resoln.)

IT ***Optical*** recording materials
(photorefractive; two-photon-absorption foaming materials for 3D photorefractive recording media with high spatial resoln.)

IT Cyanine dyes
(two-photon-absorbing; two-photon-absorption foaming materials for 3D photorefractive recording media with high spatial resoln.)

IT Blowing agents

Photorefractive materials
(two-photon-absorption foaming materials for 3D photorefractive recording media with high spatial resoln.)

IT 779-19-1
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(blowing agents; two-photon-absorption foaming materials for 3D photorefractive recording media with high spatial resoln.)

IT 9011-53-4P, Butyl methacrylate-isobutyl methacrylate copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(cellular; two-photon-absorption foaming materials for 3D photorefractive recording media with high spatial resoln.)

IT 574-93-6D, Phthalocyanine, derivs.
RL: TEM (Technical or engineered material use); USES (Uses)
(dyes, two-photon-absorbing; two-photon-absorption foaming materials for 3D photorefractive recording media with high spatial resoln.)

IT 75-28-5, Isobutane 124-38-9, Carbon dioxide, formation (nonpreparative) 7446-09-5, Sulfur dioxide, formation (nonpreparative) 7446-11-9, Sulfur trioxide, formation (nonpreparative) 7727-37-9, Nitrogen, formation (nonpreparative) 7782-44-7, Oxygen, formation (nonpreparative) 10102-44-0, Nitrogen dioxide, formation (nonpreparative)
RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative)
(emission gases; two-photon-absorption foaming materials for 3D photorefractive recording media with high spatial resoln.)

IT 54443-93-5P 66142-15-2P 88253-66-1P 88340-89-0P 681836-46-4P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediates; two-photon-absorption foaming materials for 3D photorefractive recording media with high spatial resoln.)

IT ***33628-03-4*** 78902-42-8 681836-47-5 718636-60-3 774216-84-1
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(two-photon-absorbing dyes; two-photon-absorption foaming materials for 3D photorefractive recording media with high spatial resoln.)

IT 77-32-7 115-80-0, Triethyl orthopropionate 120-92-3, Cyclopentanone 769-42-6, N,N-Dimethylbarbituric acid 927-63-9 1120-71-4, Propane sultone 4485-89-6 4637-24-5 5608-83-3 61931-68-8 165547-54-6

398522-14-0 839708-66-6

RL: RCT (Reactant); RACT (Reactant or reagent)
(two-photon-absorption foaming materials for 3D photorefractive
recording media with high spatial resoln.)

IT 767248-59-9

RL: TEM (Technical or engineered material use); USES (Uses)
(two-photon-absorption foaming materials for 3D photorefractive
recording media with high spatial resoln.)

L9 ANSWER 3 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:98040 CAPLUS

DN 142:200024

ED Entered STN: 04 Feb 2005

TI Nonresonant multiphoton-absorbing materials

IN Takizawa, Hiroo; Akiba, Masaharu

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 56 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09B023-00

ICS C09B047-20; C09K011-06; G02F001-361; G03F007-004; C07D209-14;
C07D213-06; C07D239-62; C07D263-56; C07D277-64; C07D403-06

CC 41-6 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
Sensitizers)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2005029726 | A2 | 20050203 | JP 2003-272370 | 20030709 |
| PRAI | JP 2003-272370 | | 20030709 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|----|------------|-------|---|
| JP | 2005029726 | ICM | C09B023-00 |
| | | ICS | C09B047-20; C09K011-06; G02F001-361; G03F007-004;
C07D209-14; C07D213-06; C07D239-62; C07D263-56;
C07D277-64; C07D403-06 |
| JP | 2005029726 | FTERM | 2H025/AA01; 2H025/AD01; 2H025/BC13; 2H025/CA41;
2K002/AA07; 2K002/BA01; 2K002/CA06; 2K002/GA07;
2K002/HA22; 4C055/AA01; 4C055/BA01; 4C055/CA01;
4C055/DA01; 4C055/GA01; 4C056/AA01; 4C056/AB01;
4C056/AC02; 4C056/AD03; 4C056/AE02; 4C056/CA09;
4C056/CC03; 4C056/CD02; 4C063/AA01; 4C063/BB03;
4C063/CC29; 4C063/DD06; 4C063/EE10; 4C204/BB05;
4C204/BB09; 4C204/CB03; 4C204/DB03; 4C204/DB13;
4C204/EB10; 4C204/FB03; 4C204/GB01; 4H056/CA01;
4H056/CA02; 4H056/CA05; 4H056/CB01; 4H056/CC08;
4H056/CE03; 4H056/CE06; 4H056/DD03; 4H056/DD07;
4H056/DD19; 4H056/DD23; 4H056/DD29; 4H056/FA05 |

GI

/ Structure 4 in file .gra /

AB The materials, useful for stereophotolithog., 3-dimensional displays,
3-dimensional ***optical*** recording ***media***, etc., contain
dyes showing sensitization or luminescence via nonresonant multiphoton
absorption with high efficiency. Thus, a photoresponsive compn.
comprising Bu methacrylate-iso-Bu methacrylate copolymer 100, 2-photon
absorbent I 0.5, Ph₂I+BF₄- 3.0, and crystal violet lactone 3.0 parts was
irradiated with 820 nm ***laser*** pulses to result in cyan color
development.

ST nonresonant multiphoton absorber dye sensitizer stereophotolithog;
luminescent dye nonresonant multiphoton absorber display; ***optical***
recording nonresonant multiphoton absorber dye

IT Luminescent substances

(dyes; prepn. of sensitizing or luminescent dyes showing nonresonant
multiphoton absorption with high efficiency)

IT Dyes

(luminescent; prepn. of sensitizing or luminescent dyes showing
nonresonant multiphoton absorption with high efficiency)

IT . Multiphoton absorption
(prepn. of sensitizing or luminescent dyes showing nonresonant multiphoton absorption with high efficiency)

IT , Photolithography
Stereolithography
(stereophotolithog.; prepn. of sensitizing or luminescent dyes showing nonresonant multiphoton absorption with high efficiency)

IT ***Optical*** imaging devices
Optical recording materials
(three-dimensional; prepn. of sensitizing or luminescent dyes showing nonresonant multiphoton absorption with high efficiency)

IT 54443-93-5P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of sensitizing or luminescent dyes showing nonresonant multiphoton absorption with high efficiency)

IT 500905-67-9
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(prepn. of sensitizing or luminescent dyes showing nonresonant multiphoton absorption with high efficiency)

IT 9011-53-4, Butyl methacrylate-isobutyl methacrylate copolymer
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(prepn. of sensitizing or luminescent dyes showing nonresonant multiphoton absorption with high efficiency)

IT ***33628-03-4P*** 54444-01-8P 681836-47-5P 718636-60-3P
774216-84-1P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. of sensitizing or luminescent dyes showing nonresonant multiphoton absorption with high efficiency)

IT 7440-02-0D, Nickel, complexes with azo compds. 28272-54-0 32976-69-5
40387-89-1 72076-49-4 101186-34-9 111545-69-8 183272-14-2
308116-42-9 553654-82-3 553654-83-4 680232-65-9 680232-68-2
680232-71-7 680232-73-9 680232-75-1 680232-77-3 680232-79-5
680232-80-8 680232-81-9 680232-85-3 718636-58-9 718636-62-5
718636-63-6 752253-83-1 797049-88-8D, Nickel complexes 809233-25-8
816453-41-5 816453-43-7 831218-03-2 831218-06-5 835621-22-2
835628-33-6 835628-34-7
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(prepn. of sensitizing or luminescent dyes showing nonresonant multiphoton absorption with high efficiency)

IT 115-80-0, Triethyl orthopropionate 120-92-3, Cyclopentanone 927-63-9
1120-71-4, Propane sultone 1497-49-0 4485-89-6 4637-24-5,
Dimethylformamide dimethyl acetal 5217-47-0 29636-96-2 32479-73-5
61931-68-8 165547-54-6 398522-14-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of sensitizing or luminescent dyes showing nonresonant multiphoton absorption with high efficiency)

IT 66142-15-2P 88253-66-1P 88340-89-0P 681836-46-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of sensitizing or luminescent dyes showing nonresonant multiphoton absorption with high efficiency)

L9 ANSWER 4 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:78070 CAPLUS

DN 142:136586

ED Entered STN: 28 Jan 2005

TI Two-photon absorption dye-containing material, three-dimensional refractive index modulation material, three-dimensional absorption index modulation material and three-dimensional ***optical*** recording material

IN Takizawa, Hiroo

PA Fuji Photo Film Co., Ltd., Japan

SO U.S. Pat. Appl. Publ., 66 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM C09B035-00

ICS G01J001-58

INCL 430561000; 534726000

CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
Sensitizers)

Section cross-reference(s): 74

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 2005019711 | A1 | 20050127 | US 2004-892306 | 20040716 |
| | JP 2005055875 | A2 | 20050303 | JP 2004-199005 | 20040706 |
| PRAI | JP 2003-276684 | A | 20030718 | | |
| | JP 2004-199005 | A | 20040706 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|---|
| | US 2005019711 | ICM | C09B035-00 |
| | | ICS | G01J001-58 |
| | | INCL | 430561000; 534726000 |
| | US 2005019711 | NCL | 430/561.000 |
| | JP 2005055875 | FTERM | 2H123/AD00; 2H123/AD02; 2K002/AA05; 2K002/CA05;
2K002/HA13; 4H056/CA01; 4H056/CA02; 4H056/CA05;
4H056/CB01; 4H056/CC02; 4H056/CC08; 4H056/CE03;
4H056/DD03; 4H056/DD07; 4H056/DD19; 4H056/DD23;
4H056/DD28; 4H056/DD29; 4H056/FA06; 4H056/FA10;
5D029/JA04; 5D029/JB11; 5D029/JC03; 5D029/JC04 |

OS MARPAT 142:136586

AB The two-photon absorption dye-contg. material comprises at least a two-photon absorption dye capable of decoloring itself through two-photon absorption. The material further comprises a decoloring agent precursor.

The material is useful for a three-dimensional refractive index or absorption index modulation material, and a three-dimensional

optical recording ***medium***. Thus, a two-photon absorption dye-contg. material was prep'd. from 5-chloro-2-[5-(5-chloro-3-ethyl-2(3H)-benzoxazolylidene)-1,3-pentadienyl]-3-ethylbenzoxazolium iodide (two-photon absorption dye) 17 parts, di-Ph iodonium hexafluorophosphate (decoloring agent precursor) 28 parts, polymethyl methacrylate (binder) 55 parts, and chloroform (solvent) 300 parts.

ST two photon absorption dye refractive index modulation ***optical*** recording

IT Decolorizing agents

Optical recording

Photochromic materials

Two-photon absorption

(two-photon absorption dye-contg. material for three-dimensional refractive index modulation material and ***optical*** recording material)

IT 9011-14-7, Polymethyl methacrylate

RL: TEM (Technical or engineered material use); USES (Uses)

(binder; two-photon absorption dye-contg. material for three-dimensional refractive index modulation material and

optical recording material)

IT 58109-40-3, Diphenyl iodonium hexafluorophosphate

RL: TEM (Technical or engineered material use); USES (Uses)

(decoloring agent precursor; two-photon absorption dye-contg. material for three-dimensional refractive index modulation material and

optical recording material)

IT 54443-93-5P 66142-15-2P 88253-66-1P 88340-89-0P 681836-46-4P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; two-photon absorption dye-contg. material for three-dimensional refractive index modulation material and

optical recording material)

IT 115-80-0, Triethyl orthopropionate 120-92-3, Cyclopentanone 769-42-6

927-63-9 1120-71-4, Propanesultone 1497-49-0 4485-89-6 4637-24-5

5217-47-0 29636-96-2 61931-68-8 165547-54-6 398522-14-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(starting material; two-photon absorption dye-contg. material for three-dimensional refractive index modulation material and

optical recording material)

IT ***33628-03-4P*** 78902-42-8P 681836-47-5P 718636-60-3P

774216-84-1P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material

use); PREP (Preparation); USES (Uses)
(two-photon absorption dye; two-photon absorption dye-contg. material
for three-dimensional refractive index modulation material and
optical recording material)

IT 111545-69-8

RL: TEM (Technical or engineered material use); USES (Uses)
(two-photon absorption dye; two-photon absorption dye-contg. material
for three-dimensional refractive index modulation material and
optical recording material)

L9 ANSWER 5 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:1154428 CAPLUS

DN 142:103253

ED Entered STN: 30 Dec 2004

TI Two-photon absorbing ***optical*** recording material and method

IN Akiba, Masaharu; Tani, Takeharu; Takizawa, Hiroo; Inagaki, Yoshio

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 139 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM G11B007-00

ICS G11B007-24

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | EP 1492092 | A2 | 20041229 | EP 2004-14963 | 20040625 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR | | | | |
| | JP 2005015699 | A2 | 20050120 | JP 2003-184932 | 20030627 |
| | US 2005003133 | A1 | 20050106 | US 2004-874344 | 20040624 |
| | JP 2005071570 | A2 | 20050317 | JP 2004-199003 | 20040706 |
| | JP 2005100599 | A2 | 20050414 | JP 2004-199004 | 20040706 |
| PRAI | JP 2003-184932 | A | 20030627 | | |
| | JP 2003-284959 | A | 20030801 | | |
| | JP 2003-300058 | A | 20030825 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|---|
| | EP 1492092 | ICM | G11B007-00 |
| | | ICS | G11B007-24 |
| | EP 1492092 | ECLA | G11B007/246; G11B007/247; G11B007/248; G11B007/249 |
| | JP 2005015699 | FTERM | 4J002/AB021; 4J002/AB031; 4J002/AC071; 4J002/AC121;
4J002/BB061; 4J002/BC031; 4J002/BC051; 4J002/BD041;
4J002/BD051; 4J002/BD101; 4J002/BD131; 4J002/BD141;
4J002/BD151; 4J002/BE021; 4J002/BE061; 4J002/BF021;
4J002/BG041; 4J002/BG051; 4J002/BG101; 4J002/BK001;
4J002/BL011; 4J002/BL021; 4J002/BN151; 4J002/BQ001;
4J002/CD201; 4J002/CG001; 4J002/CH021; 4J002/CK021;
4J002/CL001; 4J002/EB007; 4J002/EE056; 4J002/EL066;
4J002/EL086; 4J002/EL106; 4J002/EN076; 4J002/EP018;
4J002/EQ016; 4J002/EQ017; 4J002/ET006; 4J002/EU026;
4J002/EU028; 4J002/EU036; 4J002/EU038; 4J002/EU106;
4J002/EU136; 4J002/EU206; 4J002/EU216; 4J002/EU238;
4J002/EV256; 4J002/EV297; 4J002/EV306; 4J002/EV316;
4J002/EZ006; 4J002/FD096; 4J002/FD098; 4J002/FD207;
4J002/FD208 |
| | US 2005003133 | NCL | 428/064.200 |
| | | ECLA | G11B007/246; G11B007/247; G11B007/248; G11B007/249 |
| | JP 2005071570 | FTERM | 2H123/AD00; 2H123/AD12; 2H123/AD13; 2H123/AD14;
2H123/AD16; 2H123/AD30; 2H123/AE00; 2H123/AE01;
2H123/CA00; 2H123/CA22; 2H123/EA00; 2H123/EA08;
4H056/CA01; 4H056/CA02; 4H056/CA04; 4H056/CA05;
4H056/CB06; 4H056/CC08; 4H056/CE01; 4H056/CE03;
4H056/DD03; 4H056/DD04; 4H056/DD06; 4H056/DD15;
4H056/EA14; 4H056/FA05; 5D029/JA04; 5D029/JB11;
5D029/JB47; 5D029/JC02; 5D029/JC03; 5D029/JC04;
5D029/VA01; 5D029/VA10; 5D090/AA01; 5D090/BB03;
5D090/BB16; 5D090/CC12; 5D090/CC14; 5D090/DD01 |
| | JP 2005100599 | FTERM | 2H123/AD00; 2H123/AD12; 2H123/AE00; 2H123/AE01; |

OS MARPAT 142:103253

AB A two-photon absorbing ***optical*** recording material comprising at least one two-photon absorbing compd. and a recording component is provided. Recording is made on it by utilizing the two-photon absorption of the two-photon absorbing compd. in the material, and then the material is irradiated with light to thereby detect the difference in the reflectance between the recorded area and the unrecorded area thereof, and the recorded ***information*** is thereby reproduced from the material, and also provided are a photosensitive polymer compn. and a photon-mode recording method for the material. The object of the present invention is to provide a high-sensitivity two-photon absorbing three-dimensional ***optical*** recording material and a two-photon absorbing three-dimensional recording and reproducing method, in which the recording material contains at least a two-photon absorbing compd. having a large cross-sectional area for two-photon absorption, and, after ***information*** is recorded on the recording material by utilizing the two-photon absorption of the two-photon absorbing compd., the recording material is irradiated with light so as to detect difference of the reflectance or transmittance for ***information*** reprodn. from the material.

ST two photon absorption ***optical*** recording material ***disk***
IT ***Optical*** ***disks***

Two-photon absorption

(two-photon absorbing ***optical*** recording material and method)

IT 54443-93-5P 66142-15-2P 88340-89-0P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of two-photon absorbing compd.)

IT 115-80-0 769-42-6 1120-71-4 4485-89-6 4637-24-5 5217-47-0
5608-83-3 29636-96-2 61931-68-8 134957-47-4 398522-14-0
816453-38-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of two-photon absorbing compd.)

IT 120-92-3P, Cyclopentanone 927-63-9P 88253-66-1P 681836-46-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of two-photon absorbing compd.)

IT ***33628-03-4P*** 78902-42-8P 500905-67-9P 718636-60-3P
774216-84-1P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(two-photon absorbing ***optical*** recording material and method)

IT 681836-47-5P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(two-photon absorbing ***optical*** recording material and method)

IT 518-44-5 1207-72-3 14591-65-2 18371-32-9 30435-66-6 58109-40-3
72076-49-4 76850-82-3 114750-15-1 133795-11-6 133795-12-7
168697-84-5 169309-12-0 181885-13-2 188305-03-5 308116-42-9
452072-54-7 680232-71-7 680232-73-9 718636-63-6 809233-25-8
816453-39-1 816453-41-5 816453-43-7 ***816453-44-8***
816453-45-9 816453-46-0 816453-47-1 816453-48-2
816453-49-3 816453-50-6 816453-51-7 816453-52-8 816453-53-9
816453-54-0 816453-55-1 816453-56-2 816453-57-3 816453-58-4
816453-59-5 816453-60-8 816453-61-9 816453-62-0 816453-63-1
816453-64-2 816453-65-3 816453-66-4 816453-67-5 816453-68-6
816453-69-7 816453-70-0 816453-71-1 816453-72-2 816453-73-3
816453-74-4 816453-75-5 816453-76-6 816453-77-7 816453-78-8
816453-79-9

RL: TEM (Technical or engineered material use); USES (Uses)
(two-photon absorbing ***optical*** recording material and method)

L9 ANSWER 6 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:305221 CAPLUS

DN 140:347135

ED Entered STN: 15 Apr 2004

TI Nonresonant two-photon-absorbing material, nonresonant two-photon-emitting material, and methods for inducing absorption or generating nonresonant two-photon emission by using the material

IN Takizawa, Hiroo; Tani, Takeharu; Morinaga, Naoki

PA Fuji Photo Film Co., Ltd., Japan
 SO Eur. Pat. Appl., 46 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM G02F001-361
 ICS G03F007-00
 CC 73-10 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 41, 74

| FAN.CNT 1 | | | | | |
|-----------|---|------|----------|-----------------|----------|
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
| PI | EP 1408366 | A2 | 20040414 | EP 2003-22697 | 20031007 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| | JP 2004279794 | A2 | 20041007 | JP 2003-71874 | 20030317 |
| | JP 2004279795 | A2 | 20041007 | JP 2003-71875 | 20030317 |
| | JP 2004149517 | A2 | 20040527 | JP 2003-337029 | 20030929 |
| | US 2004086803 | A1 | 20040506 | US 2003-678301 | 20031006 |
| | JP 2005025152 | A2 | 20050127 | JP 2003-351665 | 20031010 |
| PRAI | JP 2002-293720 | A | 20021007 | | |
| | JP 2003-65580 | A | 20030311 | | |
| | JP 2003-71874 | A | 20030317 | | |
| | JP 2003-71875 | A | 20030317 | | |
| | JP 2003-168028 | A | 20030612 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES | | |
|----|---|-------|--|--|--|
| | EP 1408366 | ICM | G02F001-361 | | |
| | | ICS | G03F007-00 | | |
| | EP 1408366 | ECLA | G02F001/361B2; G02F001/361D2; G03F007/00S; G03F007/20S2 | | |
| | JP 2004279794 | FTERM | 2K002/AB12; 2K002/BA01; 2K002/CA05; 2K002/GA07;
2K002/HA13; 4H056/CA01; 4H056/CC02; 4H056/CC04;
4H056/CC08; 4H056/CD04; 4H056/CD08; 4H056/CD09;
4H056/CE01; 4H056/CE03; 4H056/CE06; 4H056/DD06;
4H056/DD07; 4H056/DD12; 4H056/DD16; 4H056/DD19;
4H056/DD23; 4H056/DD28; 4H056/DD29 | | |
| | JP 2004279795 | FTERM | 2K002/AB12; 2K002/BA01; 2K002/CA06; 2K002/HA19;
4H056/CA02; 4H056/CC04; 4H056/CC08; 4H056/CD08;
4H056/CD09; 4H056/CD12; 4H056/CE01; 4H056/CE03;
4H056/CE06; 4H056/DD03; 4H056/DD04; 4H056/DD06;
4H056/DD07; 4H056/DD12; 4H056/DD16; 4H056/DD19;
4H056/DD23; 4H056/DD28; 4H056/DD29; 4H056/FA10 | | |
| | JP 2004149517 | FTERM | 2K002/AB12; 2K002/BA01; 2K002/CA05; 2K002/HA13;
4C056/AA01; 4C056/AB01; 4C056/AC02; 4C056/AD03;
4C056/AE03; 4H006/AA01; 4H006/AA03; 4H006/AB92;
4H006/BJ50; 4H006/BN20; 4H006/BR70; 4H006/BU42;
4H006/BU46; 4H006/BU50; 4H006/NB00; 4H048/AA01;
4H048/AA03; 4H048/AB92; 4H048/VA32; 4H048/VA56;
4H048/VA60; 4H048/VA66; 4H048/YB10 | | |
| | US 2004086803 | NCL | 430/270.180 | | |
| | | ECLA | G02F001/361B2; G02F001/361D2; G03F007/00S; G03F007/20S2 | | |
| | JP 2005025152 | FTERM | 2K002/AA07; 2K002/AB29; 2K002/BA01; 2K002/CA06;
2K002/GA07; 2K002/HA22; 4H056/CA01; 4H056/CA05;
4H056/CC02; 4H056/CC08; 4H056/CE03; 4H056/CE06;
4H056/DD03; 4H056/DD04; 4H056/DD06; 4H056/DD07;
4H056/DD15; 4H056/DD19 | | |
| OS | MARPAT 140:347135 | | | | |
| AB | Nonresonant two-photon-absorbing materials are described which comprise a methine dye or a dye in an intramol. aggregation state. The methine dye is preferably a cyanine dye, a merocyanine dye, or an oxonol dye. Two-photon-emitting materials are also described which the two-photon-absorbing materials. Methods for inducing two-photon absorption and/or emission entailing irradiating the materials with ***laser*** radiation are also described. ***Optical*** recording ***media***, three-dimensional vol. displays, and three-dimensional stereolithog. are also described which employ the materials. | | | | |
| ST | nonresonant two photon absorbing emitting material; ***optical*** recording ***medium*** nonresonant two photon absorbing emitting material; three dimensional display two photon absorbing emitting material ; stereolithog two photon absorbing emitting material | | | | |

IT Cyanine dyes
 Dyes
 Luminescent substances
 •Nonlinear ***optical*** materials
 Two-photon absorption
 (nonresonant two-photon-absorbing and -emitting materials and methods for inducing absorption or generating nonresonant two-photon emission using them and their use)
 IT ***Optical*** recording materials
 Stereolithography
 (nonresonant two-photon-absorbing and -emitting materials and methods for inducing absorption or generating nonresonant two-photon emission using them and their use in)
 IT ***Optical*** imaging devices
 (three-dimensional; nonresonant two-photon-absorbing and -emitting materials and methods for inducing absorption or generating nonresonant two-photon emission using them and their use in)
 IT 67-52-7, Barbituric acid 115-80-0, Triethyl orthopropionate 273-53-0, Benzoxazole 504-17-6, Thiobarbituric acid 1120-71-4, Propane sultone 4485-89-6 5608-83-3 29636-96-2 680232-64-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (nonresonant two-photon-absorbing and -emitting materials and methods for inducing absorption or generating nonresonant two-photon emission using them and their use)
 IT 54443-93-5P 66142-15-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (nonresonant two-photon-absorbing and -emitting materials and methods for inducing absorption or generating nonresonant two-photon emission using them and their use)
 IT ***33628-03-4P*** 78902-42-8P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (nonresonant two-photon-absorbing and -emitting materials and methods for inducing absorption or generating nonresonant two-photon emission using them and their use)
 IT 14846-12-9 32976-69-5 40387-89-1 55935-20-1 65294-02-2
 72076-49-4 102731-88-4 111545-69-8 115310-99-1 183272-14-2
 308116-42-9 308116-44-1 337963-09-4 455329-63-2 680232-65-9
 680232-66-0 680232-68-2 680232-69-3 680232-71-7 680232-73-9
 680232-75-1 680232-77-3 680232-78-4 680232-79-5 680232-80-8
 680232-81-9 ***680232-83-1*** 680232-84-2 680232-85-3
 680232-87-5 680232-89-7 680232-90-0 680232-91-1 680232-92-2
 680232-94-4 680232-95-5 680232-96-6 680233-01-6 680233-02-7
 RL: TEM (Technical or engineered material use); USES (Uses)
 (nonresonant two-photon-absorbing and -emitting materials and methods for inducing absorption or generating nonresonant two-photon emission using them and their use)

L9 ANSWER 7 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:252077 CAPLUS
 DN 140:294870
 ED Entered STN: 26 Mar 2004
 TI ***Optical*** recording ***medium*** and ***optical***
 recording/reproducing method
 IN Fukuzawa, Narutoshi; Horai, Takashi; Take, Hiroshi
 PA Tdk Corporation, Japan
 SO U.S. Pat. Appl. Publ., 11 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 IC ICM G11B007-24
 INCL 430270110
 CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| ----- | --- | ----- | ----- | ----- |
| PI US 2004058274 | A1 | 20040325 | US 2003-657205 | 20030909 |
| JP 2004098542 | A2 | 20040402 | JP 2002-264973 | 20020911 |
| PRAI JP 2002-264973 | A | 20020911 | | |

 CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|---|
| US 2004058274 | ICM | G11B007-24 |
| | INCL | 430270110 |
| US 2004058274 | NCL | 430/270.110 |
| JP 2004098542 | FTERM | 2H111/EA03; 2H111/EA12; 2H111/EA22; 2H111/EA32;
2H111/EA43; 2H111/EA48; 2H111/FA14; 2H111/FA30;
2H111/FB43; 2H111/FB63; 4H056/CA01; 4H056/CC02;
4H056/CC08; 4H056/CE03; 4H056/CE06; 4H056/DD03;
4H056/DD06; 4H056/DD19; 4H056/DD23; 4H056/FA06;
5D029/JA04; 5D029/JB28; 5D029/JB47; 5D029/JC05;
5D029/JC06; 5D090/AA01; 5D090/BB03; 5D090/CC01;
5D090/CC04; 5D090/DD02; 5D090/FF11; 5D090/KK06 |

AB The present invention provides an ***optical*** recording ***medium*** that includes a recording layer composed mainly of an org. compd. and can utilize blue-violet semiconductor ***laser*** light (390 to 420 nm in wavelength) as recording/reproducing ***laser*** light. The present invention also provides an ***optical*** recording/reproducing method using the ***optical*** recording ***medium***. The ***optical*** recording ***medium*** comprises at least a supporting substrate; a recording layer on the supporting substrate, the recording layer contg. an org. compd. as a major component; and a light-transmitting layer on the recording layer, the light-transmitting layer being capable of transmitting ***laser*** light with a wavelength of 390 to 420 nm for recording and reproducing ***information***. The org. compd. in the recording layer includes a trimethine cyanine dye that has the min. value n min of its refractive index n (real part of the complex refractive index) within the range of 370 to 425 nm and has a refractive index n of 1.2 or lower with respect to the wavelength of the recording/reproducing ***laser*** light. The org. compd., when absorbing the ***laser*** light, melts or degrades to bring about a change in the refractive index, thereby effecting recording of the ***information***.

ST ***optical*** recording ***medium*** reproducing
 IT ***Optical*** recording materials
 (erasable; ***optical*** recording ***medium*** and
 optical recording/reproducing method)
 IT ***Optical*** ***disks***
 (***optical*** recording ***medium*** and ***optical***
 recording/reproducing method)
 IT Cyanine dyes
 (***optical*** recording ***medium*** and ***optical***
 recording/reproducing method contg.)
 IT ***905-96-4*** 3065-71-2 ***53213-80-2*** 675818-75-4
 RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)
 (trimethine cyanine dye; ***optical*** recording ***medium***
 and ***optical*** recording/reproducing method contg.)

L9 ANSWER 8 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2003:685872 CAPLUS
 DN 139:221678
 ED Entered STN: 03 Sep 2003
 TI ***Optical*** recording material containing dye salt from cyanine dye cation and azo-metal chelate anion
 IN Ueno, Yasunobu; Sato, Tsutomu; Tomura, Tatsuya; Noguchi, Shu
 PA Ricoh Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 18 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM B41M005-26
 ICS G11B007-24; C09B023-00; C09B045-44
 CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 41
 FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--------------------|------|----------|-----------------|----------|
| PI JP 2003246149 | A2 | 20030902 | JP 2002-50403 | 20020226 |
| PRAI JP 2002-50403 | | 20020226 | | |
| CLASS | | | | |

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

JP 2003246149 ICM B41M005-26
 ICS G11B007-24; C09B023-00; C09B045-44

OS MARPAT 139:221678
 GI

/ Structure 5 in file .gra /

AB The material comprises a support coated with a recording layer contg. a dye salt of a cyanine dye cation I [A, B = arom. ring; R9-10 = (un)substituted alkyl] and an azo-metal chelate anion from an azo compd. II [R1-8 = H, halo, nitro, cyano, OH, carboxy, amino, alkyl, aryl, alkylcarbonyl, arylcarbonyl, alkyloxycarbonyl, aryloxycarbonyl, alkylsulfonyl, arylsulfonyl, alkylthio, arylthio, alkylthioxy, arylthioxy, alkyloxy, aryloxy, alkylamino, arylamino, alkylcarbonylamino, arylcarbonylamino, alkylcarbamoyl, arylcarbamoyl, alkenyl, alkylsulfino, alkylaminosulfino, sulfo, these groups may be substituted; X = active H], and metal, metal oxide, or metal salt. The material shows good lightfastness and storage stability and is useful for DVD-R ***disk*** system using shorter ***laser*** beam.

ST ***optical*** recording material; salt cyanine dye cation azo metal chelate

IT ***Optical*** recording materials

(***optical*** recording material contg. dye salt from cyanine dye cation and azo-metal chelate anion)

IT 13963-57-0D, Aluminum acetylacetone, reaction products azo dye, salts with cyanine dye 14024-18-1D, Iron acetylacetone, reaction products azo dye, salts with cyanine dye 14284-89-0D, Manganese acetylacetone, reaction products azo dye, salts with cyanine dye 14284-92-5D, Rhodium acetylacetone, reaction products azo dye, salts with cyanine dye 15653-01-7D, Cerium acetylacetone, reaction products azo dye, salts with cyanine dye 18403-49-1D, salts with azo-metal chelate anion 18466-01-8D, salts with azo-metal chelate anion 20187-38-6D, salts with azo-metal chelate anion 21679-31-2D, Chromium acetylacetone, reaction products azo dye, salts with cyanine dye 21679-46-9D, Cobalt acetylacetone, reaction products azo dye, salts with cyanine dye ***37069-75-3D***, salts with azo-metal chelate anion 46824-14-0D, salts with azo-metal chelate anion 124710-31-2D, salts with azo-metal chelate anion 586390-36-5D, salts with azo-metal chelate anion 587878-51-1D, reaction products with metal compd., salts with cyanine dye 587878-52-2D, salts with azo-metal chelate anion 610311-36-9D, reaction products with metal compd., salts with cyanine dye 610311-37-0D, reaction products with metal compd., salts with cyanine dye 610311-38-1D, reaction products with metal compd., salts with cyanine dye 610311-39-2D, reaction products with metal compd., salts with cyanine dye 610311-40-5D, reaction products with metal compd., salts with cyanine dye RL: DEV (Device component use); USES (Uses)

(***optical*** recording material contg. dye salt from cyanine dye cation and azo-metal chelate anion)

IT 587878-45-3DP, reaction products with metal compd., salts with cyanine dye RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(***optical*** recording material contg. dye salt from cyanine dye cation and azo-metal chelate anion)

L9 ANSWER 9 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2002:977741 CAPLUS

DN 138:63909

ED Entered STN: 29 Dec 2002

TI Write-once ***optical*** recording ***medium*** suitable for 380-450 nm ***laser***

IN Oyamada, Mitsuaki; Iwamura, Takashi; Tamura, Shinichiro

PA Sony Corporation, Japan

SO PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM B41M005-26

ICS G11B007-24; G11B007-004; C09B023-06

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| PI WO 2002102598 | A1 | 20021227 | WO 2002-JP6081 | 20020618 |
| W: CA, CN, JP, KR, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR | | | | |

PRAI JP 2001-183812 A 20010618

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|-------------------------------------|
| WO 2002102598 | ICM | B41M005-26 |
| | ICS | G11B007-24; G11B007-004; C09B023-06 |
| WO 2002102598 | ECLA | G11B007/244; G11B007/247 |

OS MARPAT 138:63909

AB A recording layer having a film-forming layer contg. at least an org. dye (preferably a cyanine dye), a dielec. layer, and a light-transmitting protective film are formed on a substrate having a recess. The org. dye contained in the recording layer has an absorption spectrum having an absorption peak of a wavelength λ_{max} the relation of which with the wavelength λ of a ***laser*** beam used for recording and reproducing is $\lambda_{max} > \lambda$. Thus a write-once ***optical*** recording ***medium*** for recording and reproducing adapted for using a ***laser*** beam of wavelength of 380 to 450 nm is provided.

ST ***optical*** recording ***medium*** write once ***disk***
cyanine dye

IT Erasable ***optical*** ***disks***
(write-once ***optical*** recording ***medium*** with cyanine dye for recording-readout by 380-450 nm ***laser***)

IT ***53213-80-2*** 186818-79-1 215371-22-5
RL: DEV (Device component use); USES (Uses)
(cyanine dye; write-once ***optical*** recording ***medium*** with cyanine dye for recording-readout by 380-450 nm ***laser***)

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Asahi Denka Kogyo Kabushiki Kaisha; JP 10-168450 A 1998 CAPLUS
- (2) Eastman Kodak Co; JP 200036129 A 1999
- (3) Eastman Kodak Co; EP 961266 A2 1999 CAPLUS
- (4) Fuji Photo Film Co Ltd; JP 10-324065 A 1998 CAPLUS
- (5) Fuji Photo Film Co Ltd; JP 11-353710 A 1999 CAPLUS
- (6) Fuji Photo Film Co Ltd; JP 11-58973 A 1999 CAPLUS
- (7) Fuji Photo Film Co Ltd; JP 2001232945 A 2001 CAPLUS
- (8) International Business Machines Corp; JP 07-201077 A 1995 CAPLUS
- (9) International Business Machines Corp; US 5449590 A 1995
- (10) Mitsubishi Chemical Corp; JP 09-193545 A 1997 CAPLUS
- (11) Mitsubishi Chemical Corp; JP 11-53758 A 1999
- (12) Mitsubishi Chemical Corp; JP 2000343824 A 2000 CAPLUS
- (13) Mitsui Chemicals Ltd; JP 10-188339 A 1998 CAPLUS
- (14) Mitsui Chemicals Ltd; JP 2000222771 A 2000 CAPLUS
- (15) Tdk Kabushiki Kaisha; JP 11-34499 A 1999 CAPLUS

L9 ANSWER 10 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:754712 CAPLUS

DN 137:286546

ED Entered STN: 04 Oct 2002

TI ***Optical*** data carrier containing xanthene dye as light-absorbing compound in the ***information*** layer, the dyes and their preparation and use

IN Berneth, Horst; Bruder, Friedrich-Karl; Haese, Wilfried; Hagen, Rainer; Hassenrueck, Karin; Kostromine, Serguei; Landenberger, Peter; Oser, Rafael; Sommermann, Thomas; Stawitz, Josef-Walter; Bieringer, Thomas

PA Bayer Aktiengesellschaft, Germany

SO PCT Int. Appl., 73 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM G11B007-24

ICS C09B011-28; C07D311-82; C07D213-20

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 41

FAN.CNT 15

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|--|----------|------------------|----------|
| PI WO 2002077984 | A1 | 20021003 | WO 2002-EP3095 | 20020320 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| DE 10115227 | A1 | 20021219 | DE 2001-10115227 | 20010328 |
| DE 10117462 | A1 | 20021010 | DE 2001-10117462 | 20010406 |
| DE 10136063 | A1 | 20030213 | DE 2001-10136063 | 20010725 |
| DE 10136064 | A1 | 20030213 | DE 2001-10136064 | 20010725 |
| DE 10202571 | A1 | 20030731 | DE 2002-10202571 | 20020124 |
| US 2002155381 | A1 | 20021024 | US 2002-102586 | 20020320 |
| WO 2002086878 | A2 | 20021031 | WO 2002-EP3071 | 20020320 |
| WO 2002086878 | A3 | 20030227 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| US 2003096192 | A1 | 20030522 | US 2002-102588 | 20020320 |
| EP 1377974 | A1 | 20040107 | EP 2002-724250 | 20020320 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| EP 1377975 | A2 | 20040107 | EP 2002-727443 | 20020320 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| EP 1377978 | A2 | 20040107 | EP 2002-737887 | 20020320 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| CN 1515002 | A | 20040721 | CN 2002-810906 | 20020320 |
| CN 1516872 | A | 20040728 | CN 2002-810887 | 20020320 |
| JP 2004523395 | T2 | 20040805 | JP 2002-575938 | 20020320 |
| JP 2004524198 | T2 | 20040812 | JP 2002-584311 | 20020320 |
| TW 223252 | B1 | 20041101 | TW 2002-91105381 | 20020320 |
| JP 2004534344 | T2 | 20041111 | JP 2002-578290 | 20020320 |
| US 2005042407 | A1 | 20050224 | US 2004-953235 | 20040929 |
| PRAI DE 2001-10115227 | A | 20010328 | | |
| DE 2001-10117462 | A | 20010406 | | |
| DE 2001-10136063 | A | 20010725 | | |
| DE 2001-10136064 | A | 20010725 | | |
| DE 2002-10202571 | A | 20020124 | | |
| DE 2001-10117461 | A | 20010406 | | |
| DE 2001-10117463 | A | 20010406 | | |
| DE 2001-10117464 | A | 20010406 | | |
| DE 2001-10124585 | A | 20010521 | | |
| DE 2001-10140165 | A | 20010822 | | |
| EP 2001-123810 | A | 20011004 | | |
| EP 2001-130527 | A | 20011221 | | |
| DE 2002-10200484 | A | 20020109 | | |
| EP 2002-5505 | A | 20020311 | | |
| US 2002-101793 | A3 | 20020320 | | |
| WO 2002-EP3071 | W | 20020320 | | |
| WO 2002-EP3094 | W | 20020320 | | |
| WO 2002-EP3095 | W | 20020320 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|------------------------------------|
| WO 2002077984 | ICM | G11B007-24 |

| | | |
|---------------|-------------|--|
| WO 2002077984 | ICS
ECLA | C09B011-28; C07D311-82; C07D213-20
C07D217/14; C07D221/04B; C07D311/12; C07D311/80;
C07D455/04; C07D491/04+311B+221B; C07F015/06B;
C09B023/00S; C09B023/04; C09B023/10B; C09B029/00H2;
C09B029/00H10; C09B029/36; C09B044/10; C09B047/04B;
C09B047/08B; C09B047/26; C09B069/02; C09K009/02;
G11B007/0045R; G11B007/24; G11B007/244; G11B007/247;
G11B007/248; G11B007/249; G11B007/254; G11B007/26 |
| DE 10115227 | ECLA | C07D217/14; C07D221/04B; C07D311/12; C07D311/80;
C07D455/04; C07D491/04+311B+221B; C07F015/06B;
C09B023/00S; C09B023/04; C09B023/10B; C09B029/00H2;
C09B029/00H10; C09B029/36; C09B044/10; C09B047/04B;
C09B047/08B; C09B047/26; C09K009/02; G11B007/0045R;
G11B007/24; G11B007/244; G11B007/247; G11B007/248;
G11B007/249; G11B007/254; G11B007/26 |
| DE 10117462 | ECLA | C09B069/02; G11B007/0045R; G11B007/24; G11B007/244;
G11B007/247; G11B007/248; G11B007/254; G11B007/26 |
| DE 10136063 | ECLA | C09B069/02; G11B007/0045R; G11B007/24; G11B007/244;
G11B007/247; G11B007/248; G11B007/254; G11B007/26 |
| DE 10136064 | ECLA | C09B044/10; C09B069/02; G11B007/0045R; G11B007/24;
G11B007/244; G11B007/247; G11B007/248; G11B007/254;
G11B007/26 |
| DE 10202571 | ECLA | C09B069/02; G11B007/0045R; G11B007/24; G11B007/244;
G11B007/247; G11B007/248; G11B007/254; G11B007/26 |
| US 2002155381 | NCL
ECLA | 430/270.150
C07D217/14; C07D221/04B; C07D311/12; C07D311/80;
C07D455/04; C07D491/04+311B+221B; C07F015/06B;
C09B023/00S; C09B023/04; C09B023/10B; C09B029/00H2;
C09B029/00H10; C09B029/36; C09B044/10; C09B047/04B;
C09B047/08B; C09B047/26; C09K009/02; G11B007/0045R;
G11B007/24; G11B007/244; G11B007/247; G11B007/248;
G11B007/249; G11B007/254; G11B007/26 |
| WO 2002086878 | ECLA | C07D217/14; C07D221/04B; C07D311/12; C07D311/80;
C07D455/04; C07D491/04+311B+221B; C07F015/06B;
C09B023/00S; C09B023/04; C09B023/10B; C09B029/00H2;
C09B029/00H10; C09B029/36; C09B044/10; C09B047/04B;
C09B047/08B; C09B047/26; C09K009/02; G11B007/0045R;
G11B007/24; G11B007/244; G11B007/247; G11B007/248;
G11B007/249; G11B007/254; G11B007/26 |
| US 2003096192 | NCL
ECLA | 430/270.150
C07D217/14; C07D221/04B; C07D311/12; C07D311/80;
C07D455/04; C07D491/04+311B+221B; C07F015/06B;
C09B023/00S; C09B023/04; C09B023/10B; C09B029/00H2;
C09B029/00H10; C09B029/36; C09B044/10; C09B047/04B;
C09B047/08B; C09B047/26; C09B069/02; C09K009/02;
G11B007/0045R; G11B007/24; G11B007/244; G11B007/247;
G11B007/248; G11B007/249; G11B007/254; G11B007/26 |
| JP 2004523395 | FTERM | 2H111/EA03; 2H111/EA37; 2H111/EA39; 2H111/FA01;
2H111/FA11; 2H111/FA12; 2H111/FA14; 2H111/FA15;
2H111/FB42 |
| JP 2004524198 | FTERM | 2H111/EA03; 2H111/EA12; 2H111/EA22; 2H111/EA32;
2H111/FA01; 2H111/FA12; 2H111/FA14; 2H111/FA21;
2H111/FA37; 2H111/FB42; 2H111/FB43; 2H111/FB46;
2H111/FB50; 2H111/GA02; 2H111/GA07; 5D029/JA04;
5D029/JC01; 5D121/AA01; 5D121/AA03; 5D121/JJ07 |
| JP 2004534344 | FTERM | 2H111/EA03; 2H111/EA12; 2H111/EA22; 2H111/EA25;
2H111/EA32; 2H111/EA43; 2H111/FA01; 2H111/FA14;
2H111/FA15; 2H111/FA21; 2H111/FB44; 2H111/FB45;
2H111/GA02; 2H111/GA03; 2H111/GA07; 4H056/CA01;
4H056/CA02; 4H056/CC05; 4H056/CC08; 4H056/CD05;
4H056/CE03; 4H056/CE07; 4H056/DD03; 4H056/DD07;
4H056/DD15; 4H056/DD19; 4H056/DD29; 5D029/JA04;
5D029/JB28; 5D029/JB46; 5D029/JB47; 5D029/LA02;
5D029/LA11; 5D029/LB07; 5D029/LB12; 5D029/LB17;
5D029/LC08; 5D121/AA01; 5D121/AA04; 5D121/EE02;
5D121/EE03; 5D121/EE22 |
| US 2005042407 | NCL
ECLA | 428/064.400
C07D217/14; C07D221/04B; C07D311/12; C07D311/80;
C07D455/04; C07D491/04+311B+221B; C07F015/06B;
C09B023/00S; C09B023/04; C09B023/10B; C09B029/00H2;
C09B029/00H10; C09B029/36; C09B044/10; C09B047/04B;
C09B047/08B; C09B047/26; C09B069/02; C09K009/02; |

OS MARPAT 137:286546

AB The invention relates to an ***optical*** data carrier contg. a preferably transparent substrate which has optionally been coated with at least one reflection layer. An ***information*** layer which can be written with light, optionally at least one reflection layer and optionally a protective layer or another substrate or a covering layer are applied to the surface of the substrate. The data carrier can be written and read with blue or red light, preferably ***laser*** light. The ***information*** layer contains at least one xanthene dye contg. at least two anionic groups and having, as a counterion, at least one cation contg. at least one conjugated .pi.-system having at least 6 .pi.-electrons as a light-absorbing compd.; the layer optionally contains a binding agent. The dye cation cannot be benzyltrimethylammonium, benzyltriethylammonium, tetraphenylphosphonium, butyltriphenylphosphonium and ethyltriphenylphosphonium. The xanthene dye has an absorption max. of 420-650 nm. The dyes, their prepn. and use, and the prepn. of the ***optical*** data carrier are also claimed.

ST ***optical*** data carrier ***disk*** xanthene dye light absorber

IT ***Optical*** ROM ***disks***

(***optical*** data carriers contg. xanthene dyes as light-absorbing compd. in ***information*** recording layer)

IT Dyes

(xanthene; prepn. of xanthene dyes and use as light-absorbing compd. in ***information*** layer of ***optical*** data carriers)

IT 465544-25-6P 465544-27-8P 465544-28-9P 465544-29-0P 465544-30-3P
465544-31-4P 465544-32-5P 465544-34-7P 465544-35-8P 465544-36-9P
465544-37-0P 465544-39-2P 465544-41-6P 465544-42-7P 465544-43-8P
465544-44-9P 465544-46-1P 465544-47-2P 465544-49-4P 465544-51-8P
465544-52-9P 465544-54-1P 465544-56-3P 465544-59-6P 465544-61-0P
465544-63-2P 465544-64-3P 465544-67-6P 465547-82-4P 465547-83-5P
465547-85-7P 465547-86-8P 465547-88-0P 465547-89-1P
465547-91-5P

RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(prepn. of xanthene dyes and use as light-absorbing compd. in ***information*** layer of ***optical*** data carriers)

IT 1282-37-7, Ferrocenium tetrafluoroborate 465544-24-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of xanthene dyes and use as light-absorbing compd. in ***information*** layer of ***optical*** data carriers)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Ciba Geigy Ag; EP 0805441 A 1997 CAPLUS
- (2) Ciba Geigy Ag; EP 0805441 A 1997 CAPLUS
- (3) Edward Gurr Ltd; GB 1057594 A 1967 CAPLUS
- (4) Edward Gurr Ltd; GB 1057594 A 1967 CAPLUS
- (5) Ici Plc; EP 0542420 A 1993 CAPLUS
- (6) Ici Plc; EP 0542420 A 1993 CAPLUS
- (7) Neckers, D; US 4924009 A 1990 CAPLUS
- (8) Neckers, D; US 4924009 A 1990 CAPLUS
- (9) Sato, T; US 4656121 A 1987 CAPLUS
- (10) Sato, T; US 4656121 A 1987 CAPLUS
- (11) Wariishi, K; US 6020105 A 2000 CAPLUS
- (12) Wariishi, K; US 6020105 A 2000 CAPLUS

L9 ANSWER 11 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:193169 CAPLUS

DN 136:254596

ED Entered STN: 17 Mar 2002

TI ***Optical*** recording ***medium*** such as DVD-R containing organic dyes as light absorbing agent to form bits on substrate

IN Matsui, Fumio; Aisawa, Yasushi; Matsuura, Hiroshi

PA Hayashibara Biochemical Laboratories, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G11B007-24

ICS G11B007-24; B41M005-26; C07D209-14; C07D209-60; C07D263-62;
C07D277-64; C07D277-84; C07D285-08; C07D285-135; C07D293-12;

C09B023-00; C09B045-00

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 41

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|--|----------|
| PI | JP 2002074740 | A2 | 20020315 | JP 2000-254767 | 20000825 |
| | US 2002034605 | A1 | 20020321 | US 2001-928833 | 20010814 |
| | EP 1191526 | A2 | 20020327 | EP 2001-307143 | 20010822 |
| | EP 1191526 | A3 | 20020417 | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO | |
| | EP 1369861 | A2 | 20031210 | EP 2003-77506 | 20010822 |
| | EP 1369861 | A3 | 20031217 | R: DE, FR, GB, NL | |
| PRAI | JP 2000-254767 | A | 20000825 | | |
| | EP 2001-307143 | A3 | 20010822 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|----|---|-------|---|
| JP | 2002074740 | ICM | G11B007-24 |
| | | ICS | G11B007-24; B41M005-26; C07D209-14; C07D209-60;
C07D263-62; C07D277-64; C07D277-84; C07D285-08;
C07D285-135; C07D293-12; C09B023-00; C09B045-00 |
| US | 2002034605 | NCL | 428/064.400 |
| | | ECLA | C09B023/00D; C09B023/02; C09B023/14H; C09B045/34;
G11B007/0045R; G11B007/244; G11B007/247; G11B007/249 |
| EP | 1191526 | ECLA | C09B023/00D; C09B023/02; C09B023/14H; C09B045/34;
G11B007/0045R; G11B007/244; G11B007/247; G11B007/249 |
| EP | 1369861 | ECLA | G03G007/00B4B2; G11B007/0045R; G11B007/244; G11B007/247 |
| AB | The title ***optical*** recording ***medium*** has recording layers contg. an org. dye on a substrate, wherein the wavelength of the max. light absorbtions of the dye is larger than the wavelength of recording light. The ***optical*** recording ***medium*** provides the low prodn. cost using the org. dyes. | | |
| ST | ***optical*** recording DVD org dye light absorbing agent | | |
| IT | Erasable ***optical*** ***disks***
Optical recording materials
(***optical*** recording ***medium*** such as DVD-R contg. org. dyes as light absorbing agent for forming bits on substrate) | | |
| IT | Dyes
(org.; ***optical*** recording ***medium*** such as DVD-R contg. org. dyes as light absorbing agent for forming bits on substrate) | | |
| IT | 23178-67-8 ***57866-24-7*** 61575-72-2 95472-93-8 199665-48-0
403815-49-6 403815-51-0 403815-53-2 403815-55-4 403980-96-1
RL: TEM (Technical or engineered material use); USES (Uses)
(org. dye in recording layers of ***optical*** recording ***medium***) | | |

L9 ANSWER 12 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:105119 CAPLUS

DN 132:158980

ED Entered STN: 15 Feb 2000

TI ***Optical*** recording material using dye comprising azo metal chelate and cyanine cation

IN Sato, Tsutomu; Ueno, Yasunobu

PA Ricoh Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41M005-26

ICS C09B045-14; G11B007-24

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 41

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---------------|------|----------|-----------------|----------|
| PI | JP 2000043420 | A2 | 20000215 | JP 1998-218960 | 19980803 |

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

JP 2000043420 ICM B41M005-26
 ICS C09B045-14; G11B007-24

OS MARPAT 132:158980

GI

/ Structure 6 in file .gra /

AB The ***optical*** recording material comprises a support with an optional undercoat layer, a recording layer contg. .gtoreq.1 of I, (R1-4 = H, halo, nitro, OH, carboxy, cyano, sulfone, alkyl, aryl, alkoxy, carbamoyl, heterocycle, sulfonamide, amino, etc.; a, b, c, d = 0-4; X, Y = OH, carboxy, sulfonic acid deriv., amino; M = 2 or 3-valent metal atom which may have O, halo, etc.; n = 1-2; A, B = atoms to form a heterocycle; R5 = H, monovalent substituent) and an optional reflection layer, a protective layer, or 2nd substrate with an adhesion layer. The material shows good lightfastness and storage stability, recordable and readable by ***laser*** beam with wavelength .ltoreq.700 nm, and is useful for CD-R (compact disk recordable) and DVD-R (digital video disk-recordable).

ST ***optical*** recording material dye; azo metal chelate cyanine cation dye; compact ***disk*** digital video ***optical*** recording

IT ***Optical*** recording materials

(***optical*** recording material using dye comprising azo metal chelate and cyanine cation)

IT ***Optical*** ROM ***disks***
 (recordable; ***optical*** recording material using dye comprising azo metal chelate and cyanine cation)

IT 138690-22-9 258285-08-4 258285-10-8 258285-13-1 258285-15-3
 258285-18-6 258285-20-0 258285-22-2 258285-24-4 258285-26-6
 258285-28-8 258285-30-2 258285-33-5 ***258285-36-8***
 258285-38-0 258285-40-4 258285-42-6

RL: DEV (Device component use); USES (Uses)
 (***optical*** recording material using dye comprising azo metal chelate and cyanine cation)

L9 ANSWER 13 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:488337 CAPLUS

DN 129:142665

ED Entered STN: 05 Aug 1998

TI ***Optical*** recording ***medium***

IN Kambe, Emiko; Shinkai, Masahiro; Kitagawa, Sumiko; Monden, Atsushi

PA TDK Corp., Japan

SO PCT Int. Appl., 103 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM B41M005-26

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 9829257 | A1 | 19980709 | WO 1997-JP4735 | 19971222 |
| | W: CA, JP, KR, MX, US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | CA 2247338 | AA | 19980709 | CA 1997-2247338 | 19971222 |
| | CA 2247338 | C | 20010130 | | |
| | EP 887202 | A1 | 19981230 | EP 1997-949192 | 19971222 |
| | EP 887202 | B1 | 20040506 | | |
| | R: DE, ES, FR, GB, LU, NL, IE | | | | |
| | JP 3364231 | B2 | 20030108 | JP 1998-529819 | 19971222 |
| PRAI | JP 1996-357891 | A | 19961227 | | |
| | JP 1997-96735 | A | 19970331 | | |
| | WO 1997-JP4735 | W | 19971222 | | |

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

WO 9829257 ICM B41M005-26
WO 9829257 ECLA G11B007/249
EP 887202 ECLA G11B007/249

GI

/ Structure 7 in file .gra /

AB An ***optical*** recording ***medium*** permitting excellent recording and reprodn. within the wavelength region of prior art and/or a short wavelength region of about 630 to 690 nm, which contains in the recording layer a salt-forming dye composed of an ion of an azo-metal complex of general formula (A-N=N-B)_m.M [A = an arom. group substituted with an active hydrogen group at a position adjacent to the diazo group or a nitrogenous heteroarom. group having a nitrogen atom capable of coordinating to the oxovanadium at a position adjacent to the carbon atom to which the diazo group is bonded; B = an arom. group having an active hydrogen group at a position adjacent to the diazo group; m = 1-2; M = central metal], and an ion of a cyanine dye of general formula I [Q₁, Q₂ = atoms forming 5-membered N-contg. ring; L = methyne; R₁, R₂ = alkyl] and exhibiting a complex index of refraction wherein the imaginary part k is 0.20 or below in the wavelength regions of a recording beam and/or reproducing beam, or at least one member selected from among azooxovanadium metal complexes wherein the ligands are azo compds. of general formula A-N=N-B [A, B = same as above], and metal complexes wherein the ligands are azo compds. of general formula II or III [X = active hydrogen group; R₁, R₂ = C₂-8-alkyl; R = nitro; n = 0, 1].

ST ***optical*** recording material recordable compact ***disk***

IT ***Optical*** ROM ***disks***

Optical memory devices

Optical recording materials

(***optical*** recording ***medium***)

IT 3695-43-0D, transition metal complexes 4866-92-6D, transition metal complexes 7439-96-5D, Manganese, azo dye complexes, uses 7440-02-0D, Nickel, azo dye complexes, uses 14847-56-4D, transition metal complexes 32049-99-3D, transition metal complexes 35976-21-7D, transition metal complexes 49745-06-4 50783-80-7D, transition metal complexes 50783-81-8D, transition metal complexes 50783-82-9D, transition metal complexes 50783-83-0D, transition metal complexes 68332-08-1 73296-60-3 83688-78-2D, transition metal complexes 113352-40-2 121482-72-2 123071-49-8 145818-05-9 162023-05-4 171889-56-8 180870-06-8D, transition metal complexes 180870-08-0D, transition metal complexes 186416-14-8 189189-13-7 189189-18-2 189189-20-6 210556-32-4 210556-34-6 210556-37-9 210556-40-4 210556-41-5 210556-46-0D, transition metal complexes 210556-47-1D, transition metal complexes 210556-48-2D, transition metal complexes 210556-49-3D, transition metal complexes 210556-50-6D, transition metal complexes 210556-51-7D, transition metal complexes 210556-55-1D, transition metal complexes 210556-56-2D, transition metal complexes 210556-57-3D, transition metal complexes 210556-58-4D, transition metal complexes 210556-59-5D, transition metal complexes 210556-60-8D, transition metal complexes 210556-61-9D, transition metal complexes 210556-62-0D, transition metal complexes 210556-63-1 210556-64-2 210556-65-3 ***210556-66-4*** 210556-67-5 210556-68-6 210556-69-7 210556-70-0 210556-71-1 210556-72-2 210556-73-3 210556-74-4 210556-75-5

RL: DEV (Device component use); USES (Uses)

(in ***optical*** recording ***medium***)

IT 7440-48-4DP, Cobalt, azo dye complexes, preparation 7440-62-2DP, Vanadium, oxo azo dye complexes, preparation 20059-24-9DP, transition metal complexes 50783-86-3DP, transition metal complexes 50783-87-4DP, transition metal complexes 210556-42-6DP, transition metal complexes 210556-43-7DP, transition metal complexes 210556-44-8DP, transition metal complexes 210556-45-9DP, transition metal complexes 210556-52-8DP, transition metal complexes 210556-53-9DP, transition metal complexes 210556-54-0DP, transition metal complexes RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(in ***optical*** recording ***medium***)

IT 91-68-9 96-91-3, 2-Amino-4,6-dinitrophenol 99-07-0,
3-N,N-Dimethylaminophenol 99-57-0, 2-Amino-4-nitrophenol 111-18-2,
N,N,N'N'-Tetramethyl-1,6-diaminohexane 118-46-7, 8-Amino-2-naphthol
121-88-0, 2-Amino-5-nitrophenol 135-19-3, 2-Naphthol, reactions
150-19-6, 3-Methoxyphenol 4487-50-7, 2-Amino-4-nitropyridine
7646-79-9, Cobalt chloride, reactions 14024-62-5 43141-69-1,
3-(Dibutylamino)phenol

RL: RCT (Reactant); RACT (Reactant or reagent)
(in prepn. of ***optical*** recording materials)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Mitsubishi Chemical Corp; JP 04361088 A 1992 CAPLUS
- (2) Mitsubishi Chemical Corp; US 5330542 A 1994 CAPLUS
- (3) Mitsubishi Chemical Corp; WO 9118950 A 1994 CAPLUS
- (4) Mitsubishi Chemical Corp; JP 744904 A 1995
- (5) Mitsubishi Chemical Corp; JP 08332772 A 1996 CAPLUS
- (6) Mitsubishi Chemical Corp; JP 09193545 A 1997 CAPLUS
- (7) Mitsui Kagaku K K; JP 08156408 A 1996 CAPLUS
- (8) Mitsui Kagaku K K; JP 940659 A 1997
- (9) Ricoh Co Ltd; JP 106650 A 1998
- (10) Takao, Y; Annual Report, the Asahi Glass Foundation for the Contribution to Industrial Technology 1981, V39, P273
- (11) Tdk Corp; JP 09323478 A 1997 CAPLUS
- (12) Tdk Corp; US 5679430 A 1997

L9 ANSWER 14 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:468010 CAPLUS

DN 129:168165

ED Entered STN: 28 Jul 1998

TI ***Optical*** recording ***medium*** containing ***laser***
light-absorbing trimethinecyanine dye

IN Suzuki, Yuko; Umehara, Hideki; Tokuhiro, Atsushi; Taniguchi, Yoshiteru;
Sasakawa, Tomoyoshi; Hirose, Sumio

PA Mitsui Chemicals Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G11B007-24

ICS G11B007-24; B41M005-26; C09B023-00; C07D209-14

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

Section cross-reference(s): 41

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 10188339 | A2 | 19980721 | JP 1996-343688 | 19961224 |
| PRAI JP 1996-343688 | | 19961224 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|--|
| JP 10188339 | ICM | G11B007-24 |
| | ICS | G11B007-24; B41M005-26; C09B023-00; C07D209-14 |

OS MARPAT 129:168165

GI

/ Structure 8 in file .gra /

AB The medium has a recording layer contg. a trimethinecyanine dye I [Y, Y1 = CR4, R5, O, S, Se, NR6; R1-6= H, C1-12 (un)substituted alkyl; A1-4 = H, C1-4 alkyl; A1 and A2 or A3 and A4 may form (un)substituted benzene or naphthalene], where recording wavelength, pitch and depth of groove of a substrate, and dye thickness are specified by the document. The medium showed stable tracking in recording.

ST ***optical*** recording trimethinecyanine dye ***laser*** absorber

IT Cyanine dyes

Optical recording materials
(***optical*** recording ***medium*** contg. ***laser***
light-absorbing trimethinecyanine dye)

IT 3520-43-2, NK 1420

RL: DEV (Device component use); USES (Uses)
(NK 1420; ***optical*** recording ***medium*** contg.
laser light-absorbing trimethinecyanine dye)
905-96-4 , NK 85
RL: DEV (Device component use); USES (Uses)
(NK 85; ***optical*** recording ***medium*** contg.
laser light-absorbing trimethinecyanine dye)
IT 25470-94-4, NK 79 73075-34-0, NK 1056
RL: DEV (Device component use); USES (Uses)
(***optical*** recording ***medium*** contg. ***laser***
light-absorbing trimethinecyanine dye)

L9 ANSWER 15 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:204438 CAPLUS
DN 126:256922
ED Entered STN: 28 Mar 1997
TI Solid-state dye ***laser*** host
IN Kessler, William J.; Davis, Steven J.; Ferguson, Daniel R.; Pugh, Evan R.
PA Physical Sciences, Inc., USA
SO U.S., 17 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM H01S003-14
INCL 372039000
CC 73-10 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI US 5610932 | A | 19970311 | US 1995-377656 | 19950125 |
| PRAI US 1995-377656 | | 19950125 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--------------------|-------------------------|--|
| US 5610932 | ICM | H01S003-14 |
| | INCL | 372039000 |
| US 5610932 | NCL | 372/039.000; 372/053.000 |
| AB Solid-state dye | ***laser*** ***media*** | comprise a polyacrylamide gelatin solid host doped with a ***laser*** dye. Processes for formulating the solid-state dye ***laser*** hosts entail combining acrylamide with a crosslinking agent in the presence of catalysts and initiators, and, before a polymn. reaction which formulates a substantially gelatin structure, doping the acrylamide mixt. with a ***laser*** dye having one or more base solvents. ***Lasers*** employing the ***media*** are also described. The solid state dye host may exhibit self healing after photobleaching due to dye migration within the encapsulated form. |

ST ***laser*** ***medium*** dye doped polyacrylamide gel; solid state dye ***laser***

IT Solid state ***lasers***
(dye; polyacrylamide gel-based solid-state dye ***laser*** hosts)

IT Dyes
(***laser*** ; polyacrylamide gel-based solid-state dye
laser hosts)

IT Dye ***lasers***
(solid-state; polyacrylamide gel-based solid-state dye ***laser***
hosts)

IT 90-33-5
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(Coumarin 456; polyacrylamide gel-based solid-state dye ***laser***
hosts)

IT 87-01-4
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(Coumarin 461; polyacrylamide gel-based solid-state dye ***laser***
hosts)

IT 20571-42-0, LD 466
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(Coumarin 466, LD 466; polyacrylamide gel-based solid-state dye

IT ***laser*** hosts)
41175-45-5, Coumarin 478
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
 (Coumarin 478; polyacrylamide gel-based solid-state dye ***laser***
hosts)
IT 87349-92-6, Coumarin 510
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
 (Coumarin 510; polyacrylamide gel-based solid-state dye ***laser***
hosts)
IT 58336-35-9, LD 490
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
 (Coumarin 6H, LD 490; polyacrylamide gel-based solid-state dye
 laser hosts)
IT 51325-95-2, DCM II
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
 (DCM II; polyacrylamide gel-based solid-state dye ***laser***
hosts)
IT 19764-95-5, DMOTC
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
 (DMOTC; polyacrylamide gel-based solid-state dye ***laser*** hosts)
IT 905-97-5, DTCI
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
 (DTCI; polyacrylamide gel-based solid-state dye ***laser*** hosts)
IT 57472-19-2, DTP
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
 (DTP; polyacrylamide gel-based solid-state dye ***laser*** hosts)
IT 122-99-6
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
 (EPH; polyacrylamide gel-based solid-state dye ***laser*** hosts)
IT 19764-96-6
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
 (Hexacyanine 3, HITC Iodide; polyacrylamide gel-based solid-state dye
 laser hosts)
IT 57980-10-6, LD 390
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
 (LD 390, Quinolon 390; polyacrylamide gel-based solid-state dye
 laser hosts)
IT 137993-41-0, LD 800
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
 (LD 800, Rhodamine 800; polyacrylamide gel-based solid-state dye
 laser hosts)
IT 76433-27-7, LDS 730
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
 (LDS 730, Styryl 6; polyacrylamide gel-based solid-state dye
 laser hosts)
IT 89872-07-1, LDS 750
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
 (LDS 750, Styryl 7; polyacrylamide gel-based solid-state dye
 laser hosts)
IT 92479-59-9, LDS 798
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
 (LDS 798, Styryl 11; polyacrylamide gel-based solid-state dye
 laser hosts)
IT 82988-08-7, LDS 821
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
 (LDS 821, Styryl 9, Styryl 9M; polyacrylamide gel-based solid-state dye
 laser hosts)

IT 41593-38-8
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
(PPH; polyacrylamide gel-based solid-state dye ***laser*** hosts)

IT 16650-80-9, Phenoxazone 9
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
(Phenoxazone 9, Phenoxazone 660; polyacrylamide gel-based solid-state
dye ***laser*** hosts)

IT 110-18-9 7727-54-0, Ammonium persulfate
RL: CAT (Catalyst use); USES (Uses)
(polyacrylamide gel-based solid-state dye ***laser*** hosts)

IT 9003-05-8 25034-58-6, N,N'-Methylenebisacrylamide-acrylamide copolymer
RL: DEV (Device component use); USES (Uses)
(polyacrylamide gel-based solid-state dye ***laser*** hosts)

IT 57-55-6, 1,2-Propanediol, uses 76-54-0, Fluorescein 548 81-88-9,
Rhodamine 610 chloride 91-44-1, Coumarin 460 92-71-7, PPO 92-94-4,
p-Terphenyl 107-21-1, 1,2-Ethanediol, uses 108-32-7, Propylene
Carbonate 135-70-6, p-Quaterphenyl 518-47-8, Disodium Fluorescein
569-64-2, Malachite Green 605-91-4, Pinacyanol 629-20-9,
Cyclooctatetraene 779-02-2, 9-Methylanthracene 846-63-9, .alpha.-NPO
852-38-0, PBD ***905-96-4***, DOCl 977-96-8, PICI 989-38-8,
Rhodamine 6G 1643-20-5, Ammonyx LO 1806-34-4, POPOP 2039-68-1, DPS
2083-09-2, BBO 2156-29-8, DASPI 2642-25-3, DQTCI 3028-97-5, DASBTI
3071-70-3, DTTC 3520-42-1, Kiton Red 620 3599-32-4, IR-125
4727-50-8, Cryptocyanine 4846-34-8, NCI 13161-28-9, Rhodamine 590
perchlorate 13280-61-0, Bis-MSB 13558-31-1 14187-31-6, DDI
14806-50-9 15082-28-7, Butyl PBD 15185-43-0, DOTC 16595-48-5
17064-47-0, PBBO 18434-08-7, BBQ 19125-99-6, Fluorol 555 20591-23-5,
DCI 23178-67-8, HDITC 23857-51-4, Rhodamine 610 Perchlorate
23857-69-4, Rhodamine 3B Perchlorate 24796-94-9, Oxazine 725
25152-49-2, Rhodamine 575 25470-94-4, HICI 26078-25-1, Coumarin 450
26093-31-2, Coumarin 440 27344-41-8, Stilbene 420 27425-55-4, Coumarin
535 28821-18-3, Coumarin 445 32151-96-5, DQOCI 36536-22-8, HIDC
38215-36-0, Coumarin 540 38465-55-3 41044-12-6, Coumarin 515
41267-76-9, Coumarin 480 41830-80-2, Cresyl violet 670 perchlorate
41830-81-3, LD 690 41934-47-8, Coumarin 481 47450-63-5, DMETCI
51325-91-8, 4-Dicyanomethylene-2-methyl-6-p-dimethylaminostyryl-4H-pyran
52840-38-7, Coumarin 500 53092-64-1, DMT 53340-16-2, Nile Blue 690
53518-14-2, Coumarin 485 53518-15-3, Coumarin 490 53518-18-6, Coumarin
540A 53518-19-7, Coumarin 522 53655-17-7, IR-140 54849-65-9, IR-143
54849-69-3, IR-144 55804-65-4, Coumarin 519 55804-66-5, Coumarin 504
55804-67-6, Coumarin 521 55804-68-7, Coumarin 523 55804-70-1, Coumarin
503 58336-37-1, LD 423 58721-74-7, LD 473 60311-02-6, Sulforhodamine
640 61010-01-3, IR5 62669-60-7, Oxazine 720 62669-62-9, IR-132
63561-42-2, LD 700 Perchlorate 65767-27-3 72102-91-1, Rhodamine 640
Perchlorate 76433-29-9, LDS 751 76871-75-5, IR-26 83846-69-9, DNNTCI
85256-40-2, Oxazine 750 Perchlorate 85642-10-0, Coumarin 525
85642-11-1, Coumarin 545 87004-02-2, LDS 698 87331-48-4, Coumarin 498
89072-57-1, Coumarin 487 89703-14-0, TBS 89703-16-2, QUI 89750-25-4,
LD 688 89846-21-9, LDS 722 94507-05-8, LDS 925 111458-33-4, Exalite
384 111488-20-1, Exalite 389 114932-35-3, DMQ 118216-60-7, Exalite
392E 121207-31-6, Pyrromethene 546 121461-69-6, Pyrromethene 556
124709-25-7 131083-16-4 137262-28-3, Exalite 416 138452-24-1, LD 425
138531-92-7, Exalite 398 150825-67-5, LDS 759 153307-11-0, Exalite 404
154530-43-5, LDS 765 161937-34-4, Exalite 377E 173406-98-9, Exalite
392A 188437-71-0 188437-72-1 188652-66-6, Coumarin 522B
188652-71-3, DaQTeC 188652-72-4, DCM Special 188652-73-5, DDBCI
188652-74-6, DNOTPC 188652-75-7 188652-77-9, DTOCI 188652-78-0,
Exalite 400E 188652-79-1, Exalite 351 188652-80-4, Exalite 378
188652-85-9, Exalite 411 188652-86-0, Exalite 417 188652-87-1, Exalite
428 188652-92-8, LD 489 188652-93-9, LDS 720 188652-94-0, LDS 867
188653-01-2, OQTCI 188653-02-3, OQTICI 188653-08-9, Saturable Absorber
580
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)
(polyacrylamide gel-based solid-state dye ***laser*** hosts)

L9 ANSWER 16 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:20781 CAPLUS
DN 126:74826
ED Entered STN: 15 Jan 1997

TI Preparation of quaternary ammonium compounds and methine compounds as
optical recording materials

IN Hioki, Takanori

PA Fuji Photo Film Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C07D209-08

ICS B41M005-26; C07D215-06; C07D235-08; C07D263-56; C07D263-60;
C07D277-22; C07D277-64; C07D293-12; C07D403-06; C07D417-06;
C09B023-00; G03C001-12; G03C001-18; G03C001-22

CC 28-6 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 74

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--------------------|------|----------|-----------------|----------|
| PI JP 08269009 | A2 | 19961015 | JP 1995-75167 | 19950331 |
| PRAI JP 1995-75167 | | 19950331 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|---|
| JP 08269009 | ICM | C07D209-08 |
| | ICS | B41M005-26; C07D215-06; C07D235-08; C07D263-56;
C07D263-60; C07D277-22; C07D277-64; C07D293-12;
C07D403-06; C07D417-06; C09B023-00; G03C001-12;
G03C001-18; G03C001-22 |

OS MARPAT 126:74826

GI

/ Structure 9 in file .gra /

AB The title compds. [I and II; R = CH₂CH₂CHR₂SO₃-, CH₂CH₂C(CH₂Ph)2SO₃-; wherein R₂ = Et, Ph, CH₂Ph, allyl; Z₁, Z₂ = a group of atoms required to form a 5- to 6-membered N-contg. heterocyclic ring; n, m = 0,1; R₁ = a compd. residue required to form a methine compd.; M₁ = a counter ion neutralizing the charge; l = no. of 0-4 required to neutralize the charge], which are useful as coloring agents, light absorbing agents, dyes for ***optical*** ***disks***, mol. photosensitizers for silver halide photog. or electrophotog., or drugs, are prep'd. Thus, benzoxazolium deriv. (III; R = Et) and Et orthopropionate were heated in AcOH and pyridine at 140.degree. for 2 h to give, after salt change with AcOK, the title compd. (IV; R = Et, M = K⁺). A dye thin film (100 nm) made of IV (R = Ph, M = K⁺) on a glass substrate was irradiated with a ***laser*** beam at 532 nm and 1 mW intensity for 10 s and the irradiated part showed the destruction of the film, confirming that the dyes film functioned as an ***optical*** ***disk***.

ST methine dye prep'n ***optical*** recording material; ***laser*** ***optical*** ***disk***; benzoxazolium salt prep'n ***optical*** recording material

IT Cyanine dyes

Optical recording materials
(prep'n. of quaternary ammonium compds. and methine compds. as ***optical*** recording materials)

IT 98-09-9, Benzenesulfonyl chloride 100-39-0, Benzyl bromide 106-95-6, Allyl bromide, reactions 107-21-1, 1,2-Ethanediol, reactions 115-80-0, Ethyl orthopropionate 1120-71-4, 1,3-Propanesultone 5676-56-2, 5-Bromo-2-methylbenzoxazole 10147-36-1, Propylsulfonyl chloride 61931-68-8, 5-Phenyl-2-methylbenzoxazole 85163-68-4 89976-17-0, 5-Iodo-2-methylbenzoxazole

RL: RCT (Reactant); RACT (Reactant or reagent)

(prep'n. of quaternary ammonium compds. and methine compds. as ***optical*** recording materials)

IT 26910-63-4P 69873-07-0P 75732-43-3P 185016-63-1P 185016-64-2P
185016-65-3P 185016-66-4P 185016-67-5P 185016-68-6P 185016-69-7P
185016-70-0P 185016-83-5P 185016-84-6P 185016-85-7P

185016-87-9P 185016-89-1P 185019-64-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(prepn. of quaternary ammonium compds. and methine compds. as
optical recording materials)

IT ***185016-71-1P*** ***185016-72-2P*** ***185016-74-4P***
 185016-75-5P ***185016-76-6P*** ***185016-77-7P***
 185016-78-8P ***185016-79-9P*** ***185016-80-2P***
185016-81-3P ***185016-82-4P***

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prepn. of quaternary ammonium compds. and methine compds. as
optical recording materials)

L9 ANSWER 17 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1995:881533 CAPLUS

DN 123:301631

ED Entered STN: 27 Oct 1995

TI ***Optical*** data memory ***media*** with multiple data layers

PA International Business Machines Corp., USA

SO Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G11B007-24

ICS G11B007-24; B41M005-26; G11B007-00

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 07201077 | A2 | 19950804 | JP 1994-253910 | 19941019 |
| | CA 2134140 | C | 19981215 | CA 1994-2134140 | 19941024 |
| | EP 658887 | A1 | 19950621 | EP 1994-309239 | 19941209 |
| | EP 658887 | B1 | 20000223 | | |
| | R: DE, FR, GB | | | | |
| | KR 162122 | B1 | 19981215 | KR 1994-33390 | 19941209 |
| | CN 1069432 | B | 20010808 | CN 1994-119323 | 19941213 |
| PRAI | US 1993-167714 | A | 19931215 | | |

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

| | | |
|-------------|------|---|
| JP 07201077 | ICM | G11B007-24 |
| | ICS | G11B007-24; B41M005-26; G11B007-00 |
| EP 658887 | ECLA | G11B007/24; G11B007/24R; G11B007/244; G11B007/247;
G11B007/248; G11B007/249; G11B007/258 |

AB The data surfaces of the title media are coated with specific dyes and sepd. via radiation transmitting material layers to adjust the reflection signals from the data surfaces.

ST ***optical*** data memory ***media*** multiple layer

IT Memory devices

Recording materials

(***optical*** , ***optical*** data memory ***media*** with
multiple data layers)

IT Memory devices

(***optical*** ***disks*** , read-only, ***optical*** data
memory ***media*** with multiple data layers)

IT Coating materials

(reflective, ***optical*** data memory ***media*** with
multiple data layers)

IT 77-09-8D, Phenolphthalein, derivs. 147-14-8, Copper phthalocyanine
514-73-8, Diethylthiadicarbocyanine iodide 660-68-4, Diethylammonium
chloride 2475-45-8, 1,4,5,8-Tetraaminoanthraquinone ***2581-86-4***
3317-67-7, Cobalt phthalocyanine 3568-36-3 63842-83-1,
Hydroxysquarylium 131443-20-4, 1,1'-Dibutyl-3,3,3',3'-tetramethyl-
4,5,4',5'-dibenzoindodicarbocyanine perchlorate 169381-61-7

RL: DEV (Device component use); USES (Uses)

(data surface of ***optical*** data memory coated with)

L9 ANSWER 18 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1994:591142 CAPLUS

DN 121:191142

ED Entered STN: 15 Oct 1994

TI Silver halide photographic emulsion and light-sensitive silver halide

photographic material
IN Tanaka, Shigeo; Kaga, Makoto; Ikeda, Tsuyoshi
PA Konica Co., Japan
SO Eur. Pat. Appl., 49 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM G03C001-005
ICS G03C001-015; G03C007-30; G03C001-14; G03C001-16; G03C001-18
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|----------|
| PI | EP 593177 | A1 | 19940420 | EP 1993-307705 | 19930929 |
| | EP 593177 | B1 | 19980715 | | |
| | R: DE, FR, GB, NL | | | | |
| | JP 06123927 | A2 | 19940506 | JP 1992-274522 | 19921013 |
| | JP 3038422 | B2 | 20000508 | | |
| | US 5403705 | A | 19950404 | US 1993-127788 | 19930928 |
| PRAI | JP 1992-274522 | A | 19921013 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|------------|-------|--|
| | EP 593177 | ICM | G03C001-005 |
| | | ICS | G03C001-015; G03C007-30; G03C001-14; G03C001-16; G03C001-18 |
| | EP 593177 | ECLA | G03C001/005; G03C001/08; G03C001/14; G03C001/83C; G03C007/30L |
| | US 5403705 | NCL | 430/570.000; 430/517.000; 430/522.000; 430/546.000; 430/569.000; 430/581.000; 430/582.000; 430/583.000; 430/584.000; 430/585.000 |
| | | ECLA | G03C001/005; G03C001/08; G03C001/14; G03C001/83C; G03C007/30L |

OS MARPAT 121:191142

GI

/ Structure 10 in file .gra /

AB The title light-sensitive material comprises a support having thereon a Ag halide emulsion layer, and the Ag halide emulsion layer comprises Ag halide grains having a AgCl content of .gtoreq.95 mol%. The emulsion is optically sensitized by addn. of a dispersion of an ***optical*** sensitizer comprising a ***medium*** and particles of the dye dispersed in the medium. The ratio of Ag to gelatin (Ag/Gel) in the emulsion at the time of addn. of the dispersion of the dye is 2 to 8.5. In the title material, the ***optical*** sensitizer is represented by I, II, or III [Z11 and Z12 are each a group of atoms necessary to complete a nucleus of oxazole, thiazole, selenazole, pyridine, benzoxazole, benzothiazole, benzoselenazole, benzimidazole, naphthoxazole, naphthothiazole, naphthoselenazole, naphthimidazole or quinoline; R11 and R12 are each an alkyl group, an alkenyl group or an aryl group; X- an anion; and m is zero or 1, wherein Z21 and Z22 are same as Z11 and Z12; R21 and R22 are the same as R11 and R12; Z31 and Z32 are each a group of atoms necessary to complete a nucleus of benzoxazole, benzothiazole, benzoselenazole, naphthoxazole, naphthothiazole, naphthoselenazole or quinoline; R31 and R32 are the same as R11 and R12]. The material has improved storage stability.

ST photog emulsion ***optical*** sensitizer

IT Photographic emulsions

(for improved storage stability)

IT Photographic sensitizers

(solid dispersion of methine dye as)

IT 4622-66-6 ***47867-58-3*** 64409-28-5 67132-51-8 70211-20-0

70211-26-6 ***106518-54-1*** 113477-02-4 ***123820-83-7***

145977-69-1

RL: PROC (Process)

(photog. sensitizer from solid dispersion of)

AN 1994:496196 CAPLUS
DN 121:96196
ED Entered STN: 20 Aug 1994
TI ***Optical*** recording ***medium***
IN Miyadera, Toshiyuki; Okano, Makoto; Matsui, Fumio
PA Pioneer Electronic Corp., Japan
SO U.S., 9 pp. Cont. of U.S. Ser. No. 679,489, abandoned.
CODEN: USXXAM
DT Patent
LA English
IC ICM G03C001-00
 ICS G11B007-24
INCL 430495000
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 5316899 | A | 19940531 | US 1993-807 | 19930105 |
| | JP 04153928 | A2 | 19920527 | JP 1990-277194 | 19901015 |
| | JP 2842939 | B2 | 19990106 | | |
| PRAI | JP 1990-277194 | A | 19901015 | | |
| | US 1991-679489 | B1 | 19910402 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|--|
| US 5316899 | ICM | G03C001-00 |
| | ICS | G11B007-24 |
| | INCL | 430495000 |
| US 5316899 | NCL | 430/270.200; 346/135.100; 369/284.000; 369/288.000;
430/945.000 |
| | ECLA | G11B007/241; G11B007/247 |

GI

/ Structure 11 in file .gra /

AB An ***optical*** recording ***medium*** is described having a pair of recording films each contg. I and II resp. which have a predetd. light absorption distribution and have step absorption end slopes which are closer to each other. The difference between the wavelengths of recording or reprodn. lights for these 2 recording films may be close to .apprx.50 nm. A common ***optical*** system may be used for recording or reprodn. operation for the 2 recording films, whereby the ***optical*** system may be simplified.

ST ***optical*** recording dye cyanine

IT Recording materials

(***optical*** , cyanine dyes for)

IT 34157-25-0 ***34215-57-1***

RL: USES (Uses)

(in ***optical*** recording materials)

L9 ANSWER 20 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1993:428132 CAPLUS

DN 119:28132

ED Entered STN: 24 Jul 1993

TI Preparation of benzothiazolylmethine compounds and quaternary ammonium salts

IN Okazaki, Masaki; Kato, Takashi; Fujiwara, Toshinori; Ikegawa, Akihiko; Nishigaki, Junji; Kawada, Ken

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C07D213-20

 ICS B41M005-26; C07D215-10; C07D233-60; C07D235-08; C07D263-32;
 C07D263-56; C07D263-62; C07D277-22; C07D277-64; C07D293-06;
 C07D293-12; C07D401-06; C07D401-14; C07D413-06; C07D413-14;
 C07D417-06; C07D417-14; C07D421-06; C09B023-00

CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 41, 74

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 04334369 | A2 | 19921120 | JP 1991-128249 | 19910502 |
| PRAI JP 1991-128249 | | 19910502 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|--|
| JP 04334369 | ICM | C07D213-20 |
| | ICS | B41M005-26; C07D215-10; C07D233-60; C07D235-08;
C07D263-32; C07D263-56; C07D263-62; C07D277-22;
C07D277-64; C07D293-06; C07D293-12; C07D401-06;
C07D401-14; C07D413-06; C07D413-14; C07D417-06;
C07D417-14; C07D421-06; C09B023-00 |

OS MARPAT 119:28132

GI

/ Structure 12 in file .gra /

AB The title compds., e.g., I, II, useful as coloring materials,
optical ***disk*** dyes, photog. photosensitizing dyes, are
prep'd. A mixt. of equimolar benzothiazole III and sulfone IV was heated
at 150.degree., cooled to 100.degree., EtOAc was added with stirring to
give 32% I. II was dissolved in MeOH to a 2% soln., which was spin-coated
onto a glass substrate to give an ***optical*** ***disk***.

ST benzothiazolylmethine prep'n photog sensitizer dye

IT Dyes

(benzothiazolylmethine compds.)

IT Photographic sensitizers

(dyes, benzothiazolylmethine compds.)

IT 148242-94-8P 148254-09-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(prepn. and reaction of, in prepn. of photog. sensitizer dyes)

IT 148242-95-9P 148242-96-0P 148242-97-1P ***148242-98-2P***
148254-10-8P 148254-11-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of, as photog. sensitizer dye)

IT 115-80-0 763-32-6, 3-Methyl-3-buten-1-ol 61931-68-8,
2-Methyl-5-phenylbenzoxazole

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in prepn. of photog. sensitizer dyes)

IT 5455-50-5, 2-Methyl-1,4-butane sultone

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with benzothiazole deriv., in prepn. of photog.
sensitizer dyes)

IT 1006-99-1, 5-Chloro-2-methylbenzothiazole

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with methylbutane sultone, in prepn. of photog.
sensitizer dyes)

L9 ANSWER 21 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1991:502928 CAPLUS

DN 115:102928

ED Entered STN: 06 Sep 1991

TI Detection of recording status of ***optical*** recording
medium

IN Hashida, Taku; Ando, Eiji

PA Matsushita Electric Industrial Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G11B007-24

ICS B41M005-26; G11B007-00

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--------------------|------|----------|-----------------|----------|
| JP 02226527 | A2 | 19900910 | JP 1989-45998 | 19890227 |
| JP 08027945 | B4 | 19960321 | | |
| PRAI JP 1989-45998 | | 19890227 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|-------------|-----|------------------------|
| JP 02226527 | ICM | G11B007-24 |
| | ICS | B41M005-26; G11B007-00 |

AB Recording status of an ***optical*** recording ***medium*** is detected by using fluorescence from the medium contg. several dyes whose max. wavelength electronic absorption bands overlap with each other. Preferably, .gtoreq.1 of the dyes is forming J-aggregates, while the others are in monomeric or other aggregate states. The use of fluorescence improves the precision of the detection, because the dyes forming J-aggregates show larger Stokes' shift than the dyes which do not form J-aggregates.

ST ***optical*** recording status detection; dye aggregate
optical recording ***medium***

IT Recording materials
(***optical*** , dye aggregate-contg., recording status detection of)

IT 23857-51-4 ***41664-70-4*** 117204-99-6 135654-79-4
RL: TEM (Technical or engineered material use); USES (Uses)
(***optical*** recording ***medium*** contg., recording status detection of)

L9 ANSWER 22 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1989:523959 CAPLUS

DN 111:123959

ED Entered STN: 01 Oct 1989

TI Multilayer ***optical*** recording ***media*** using J-aggregate of a cyanine dye

IN Nakano, Atsushi; Shimizu, Shigeo

PA Victor Co. of Japan, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 2 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41M005-26

ICS C09B023-00; C09B023-12; G11B007-24

ICA C07D263-56

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| JP 01071789 | A2 | 19890316 | JP 1987-227680 | 19870911 |
| PRAI JP 1987-227680 | | 19870911 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|-------------|-----|------------------------------------|
| JP 01071789 | ICM | B41M005-26 |
| | ICS | C09B023-00; C09B023-12; G11B007-24 |
| | ICA | C07D263-56 |

GI

/ Structure 13 in file .gra /

AB The title ***optical*** recording ***media*** record ***information*** by utilizing the changes in absorption spectrum based on the J-aggregate of the cyanine dye I. The ***optical*** ***media*** are capable of accurate multiple recording and reading. Thus, a soln. contg. I (NK1952) and a long chain pyridinium salt in CHCl₃ was developed on distd. water to form a composite monomol. film of the salt and the dye J-aggregate, and the film was placed on a glass substrate to give an ***optical*** recording ***medium***. As the absorption max. of the medium was at 560 nm, accurate and high d.

recording could be carried out.

ST multiple ***optical*** recording ***medium*** ; cyanine dye
optical recording ***medium*** ; J aggregate ***optical***
recording ***medium***

IT Recording materials

(***optical*** , multilayer, J-aggregate of cyanine dyes for)

IT ***33628-03-4*** , NK1952

RL: USES (Uses)

(***optical*** recording material from J-aggregate of)

L9 ANSWER 23 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1987:619130 CAPLUS

DN 107:219130

ED Entered STN: 12 Dec 1987

TI Effect of the molecular structure on the fluorescent and generated wave length of the cyanine compounds

AU Vranchev, D.

CS Bulg.

SO Nauchni Trudove - Plovdivski Universitet Paisii Khilendarski (1985), 23(1, Fiz.), 113-21

CODEN: NTPUB6; ISSN: 0369-6227

DT Journal

LA Bulgarian

CC 41-6 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

GI

/ Structure 14 in file .gra /

AB The generation and fluorescence spectra of cyanine dyes (I; R = H, OMe, Me, Et; R' = Me, Et, Pr; Z = O, S, Se; n = 0-4) were most affected by R, Z, and n. A bathochromic shift of the spectral lines was caused by an increase in n and a hypsochromic shift was caused by an increase in the electronegativity of Z and by substitution of the H atom in R by alkoxy and alkyl groups. The nature of R' did not affect the fluorescence spectra of I. The shifts in fluorescence spectra were explained by changes in the mobility of pi.-electrons in the conjugated double bonds of I which were used as a ***medium*** for tunable org. ***lasers***

ST cyanine dye structure fluorescence; selenium cyanine dye fluorescence

IT Dyes, cyanine

(polymethine, fluorescence spectra of, mol. structure effect on)

IT 514-73-8 ***905-96-4*** , 3,3'-Diethyloxacarbocyanine iodide 905-97-5

1742-91-2, 3,3'-Dimethylthiacarbocyanine iodide 2197-01-5,

3,3'-Diethylthiacyanine iodide 3071-69-0 3071-70-3,

3,3'-Diethylthiatricarbocyanine iodide 14187-31-6 14806-50-9,

3,3'-Diethyloxadicarbocyanine iodide 15185-40-7, 3,3'-Diethyloxacyanine

iodide 15185-43-0, 3,3'-Diethyloxatricarbocyanine iodide 17094-08-5,

3,3'-Diethylthiatetracarbocyanine iodide 17694-03-0 18403-49-1

35077-85-1 35077-88-4 53213-85-7

RL: PRP (Properties)

(fluorescence spectra of, structure effect on)

L9 ANSWER 24 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1987:186594 CAPLUS

DN 106:186594

ED Entered STN: 29 May 1987

TI ***Optical*** recording ***medium***

IN Inoue, Toshiharu

PA Ricoh Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41M005-26

ICS G11B007-24

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

PI JP 61189990 A2 19860823 JP 1985-30227 19850220
PRAI JP 1985-30227 19850220

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

JP 61189990 ICM B41M005-26
ICS G11B007-24

AB A substrate is coated with a thin film composed of laminated monomol. layers to give an ***optical*** recording ***medium***. The medium is capable of high-d. and high-speed ***optical*** recording. Thus, a 1 .times. 10-3 M N,N'-dioctadecyloxacarbocyanine soln. in CHCl₃ was spread on the surface of an aq. CdCl₂ soln. (4 .times. 10-4 M) to give a monomol. layer (surface tension 30 dye-cm⁻¹), which was laminated successively on a glass plate by the Langmuir-Blodgett technique. The obtained ***disk*** was capable of ***optical*** recording with a ***laser*** beam at a track pitch of 3 .mu.m at 10 mW and reproducing signals of 2 mW with C/N = 54 dB.

ST ***optical*** recording ***medium*** monomol layer; Langmuir Blodgett layer ***optical*** recording

IT Dyes, cyanine
(mero-, ***laser*** -sensitive ***optical*** recording materials contg. laminated monomol. layers of)

IT Recording materials
(***optical*** , ***laser*** -sensitive, contg. laminated monomol. dye layers)

IT ***28462-56-8D*** , N,N'-Dioctadecyloxacarbocyanine, salts 40957-95-7D, N,N'-Dioctadecyltrimethineindocarbocyanine, salts 67675-27-8D, N,N'-Dioctadecylheptamethineindocarbocyanine, salts

RL: USES (Uses)

(***laser*** -sensitive ***optical*** recording material contg. laminated monomol. layers of)

IT 506-30-9, Arachic acid

RL: USES (Uses)

(***laser*** -sensitive ***optical*** recording material contg. laminated monomol. layers of merocyanine dye and)

L9 ANSWER 25 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1974:443833 CAPLUS

DN 81:43833

ED Entered STN: 12 May 1984

TI Effect of the structure of polymethine dyes on the luminescence and generating properties of their solutions

AU Mostovnikov, V. A.; Rubinov, A. N.; Al'perovich, M. A.; Avdeeva, V. I.; Levkoev, I. I.; Loiko, M. M.

CS USSR

SO Zhurnal Prikladnoi Spektroskopii (1974), 20(1), 42-7

CODEN: ZPSBAX; ISSN: 0514-7506

DT Journal

LA Russian

CC 73-6 (Spectra by Absorption, Emission, Reflection, or Magnetic Resonance, and Other Optical Properties)

Section cross-reference(s): 40

GI For diagram(s), see printed CA Issue.

AB Lasing characteristics and the .lambda.max in the absorption and the luminescence spectra are given for I (X = S, O, or CMe₂ and n = 0-4), II (X = O, S, or Se; R₃ = H or OEt; R₄ = H, Me, Et, OMe, Ph, or Br, R₅ = H or OEt, R₁ or R₂ = H or Ph), III (R = Me or Ph), and IV (R = Ac, CO₂Et, or V). The dyes III and IV do not show promise as ***laser*** ***media***. The effect of the structure of the dyes on their ***optical*** properties is discussed.

ST polymethine dye ***laser*** ; luminescence absorption polymethine dye

IT Luminescence

Ultraviolet and visible spectra

(of polymethine dyes)

IT ***Lasers***

(polymethine dye, structural effects on)

IT Dyes, cyanine

(polymethine, lasing characteristics of)

IT 7187-55-5 18403-49-1 20766-55-6 23178-68-9 37069-70-8

37069-75-3 37069-76-4 38912-20-8 47583-43-7 47583-44-8

47812-31-7 52754-39-9 52754-40-2 52754-41-3 52754-42-4

52754-43-5 52754-44-6 52754-45-7 52754-46-8 52754-47-9
52754-48-0 52754-49-1 52754-50-4 52754-51-5 52754-52-6
52754-53-7 52789-42-1 52789-43-2 52844-16-3 52844-17-4
52844-18-5 52845-13-3

RL: PRP (Properties)

(lasing characteristics of, structural effects on)

=> s (16 or 15) and (390 or 395 or 400 or 405 or 410 or 415 or 420 or 422 or 425)

21822 390

8178 395

381344 400

11823 405

24269 410

10258 415

39402 420

6257 422

17835 425

L10 71 (L6 OR L5) AND (390 OR 395 OR 400 OR 405 OR 410 OR 415 OR 420
OR 422 OR 425)

=> s (16 or 15) and ((390 or 395 or 400 or 405 or 410 or 415 or 420 or 422 or 425) (3a)nm)

21822 390

8178 395

381344 400

11823 405

24269 410

10258 415

39402 420

6257 422

17835 425

560468 NM

785 NMS

561078 NM

(NM OR NMS)

35906 (390 OR 395 OR 400 OR 405 OR 410 OR 415 OR 420 OR 422 OR 425) (3A
)NM

L11 34 (L6 OR L5) AND ((390 OR 395 OR 400 OR 405 OR 410 OR 415 OR 420
OR 422 OR 425) (3A)NM)

=> d all 1-34

L11 ANSWER 1 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:859324 CAPLUS

DN 143:219354

ED Entered STN: 18 Oct 2004

TI Latent-image formation in tabular AgBr grains: experimental studies

AU Hailstone, R. K.; French, J.; de Keyzer, R.

CS Chester F. Carlson Center for Imaging Science, Rochester Institute of
Technology, Rochester, NY, 14623, USA

SO Imaging Science Journal (2004), 52(3), 151-163

CODEN: ISCFJK; ISSN: 1368-2199

PB Maney Publishing

DT Journal

LA English

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

AB Five tabular-grain AgBr emulsions of varying grain thickness were studied.
Two were chem. sensitized in the presence of a blue spectral sensitizing
dye, whereas the other three were chem. sensitized in the presence of a
green spectral sensitizing dye. A companion set of emulsions chem.
sensitized in the absence of dye was also prep'd. Internal image
development of the unsensitized emulsions showed substantial internal
image in one emulsion, but minor amts. in the other emulsions. After
chem. sensitization, there was no detectable internal image in any of the
emulsions. Reciprocity failure data from 10⁻⁴ to 10³ s showed that the
emulsions sensitized in the presence of dye had little if any
high-irradiance reciprocity failure, suggesting the min. developable size
of the latent image was three atoms for the development conditions used.
Low-irradiance reciprocity failure commenced at 0.1-1 s. Long wavelength
sensitivity studies showed that the chem. sensitization generally enhanced
the sensitivity of three spectral regions in the emulsions sensitized in

the absence of dye-550, 650 and 750 nm. These spectral regions are suggested to coincide with three distinct states of the sensitizer centers. Data for the emulsions chem. sensitized in the presence of dye were limited owing to the interference by dye absorption. The temp. dependence of the long wavelength sensitivity showed the activation energy for this process increased as the wavelength increased. Quantum sensitivity measurements were also made at the midpoint of the D-log E curve using 0.1 s exposures. Neglecting the polydisperse nature of these emulsions, values were 10-19 absorbed photons/grain for ***400*** -

nm exposures and 13-27 absorbed photons/grain for spectral exposures. An energy-level diagram was constructed for the emulsions sensitized in the absence of dye using their measured activation energies and the photon energies of the three spectral regions. The 550 center is most likely a single-sulfide or single-selenide center, with an unknown gold content and provides a shallow electron trap (0.1 eV max. depth). The compns. of the 650 and 750 centers are most likely multiple sulfide or selenide or sulfide-selenide with unknown gold content. They provide deeper electron traps of depth 0.225-0.425 eV (650 center) and 0.45-0.65 (750 center), with the 650 center probably the dominant of the two in terms of concn.

ST photog silver bromide emulsion latent image formation mechanism; silver bromide tabular grain photog latent image formation

IT Activation energy

Electron traps

Photographic emulsions

Photographic sensitization

Photography

Photolysis

(mechanism of photog. latent-image formation in tabular AgBr grains chem. sensitized in presence and absence of spectral sensitizing dye)

IT Photographic sensitizers
(spectral; mechanism of photog. latent-image formation in tabular AgBr grains chem. sensitized in presence and absence of spectral sensitizing dye)

IT 333-20-0, Potassium thiocyanide 3878-44-2, Triphenylphosphine selenide
7757-83-7, Disodium sulfite 16903-35-8, Tetrachloroauric acid

RL: RGT (Reagent); RACT (Reactant or reagent)

(chem. sensitizer; mechanism of photog. latent-image formation in tabular AgBr grains chem. sensitized in presence and absence of spectral sensitizing dye)

IT 7785-23-1, Silver bromide

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(mechanism of photog. latent-image formation in tabular AgBr grains chem. sensitized in presence and absence of spectral sensitizing dye)

IT ***39201-42-8*** 55425-23-5

RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
(spectral sensitizer; mechanism of photog. latent-image formation in tabular AgBr grains chem. sensitized in presence and absence of spectral sensitizing dye)

RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Charlier, E; J Imag Sci Technol 2000, V44, P235 CAPLUS
- (2) Daubendiek, R; US 5503971 1996 CAPLUS
- (3) Farnell, G; J Photogr Sci 1980, V28, P145 CAPLUS
- (4) Hailstone, R; Imag Sci J 2003, V51, P125 CAPLUS
- (5) Hailstone, R; Imag Sci J 2003, V51, P141 CAPLUS
- (6) Hailstone, R; Imag Sci J 2003, V51, P21 CAPLUS
- (7) Hailstone, R; Imag Sci J 2003, V51, P33 CAPLUS
- (8) Hailstone, R; Imag Sci J 2004, V52, P164 CAPLUS
- (9) Hailstone, R; J Imag Sci 1985, V29, P125 CAPLUS
- (10) Hailstone, R; J Imag Sci 1988, V32, P113 CAPLUS
- (11) Hailstone, R; J Imag Sci Technol 1993, V37, P61
- (12) Hailstone, R; J Imag Sci Technol 2001, V45, P76 CAPLUS
- (13) Hailstone, R; J Photogr Sci 1984, V32, P25 CAPLUS
- (14) Hailstone, R; J Soc Photogr Sci Technol Japan 1994, V57, P215 CAPLUS
- (15) Hailstone, R; Photogr Sci Eng 1983, V27, P152 CAPLUS
- (16) Kanzaki, H; J Phys Chem Solids 1994, V55, P631 CAPLUS
- (17) Kanzaki, H; J Phys Chem Solids 1997, V58, P221 CAPLUS
- (18) Kofron, J; US 4439520 1984 CAPLUS
- (19) Mifune, H; J Imag Sci Technol 2002, V46, P262 CAPLUS
- (20) Ohzeki, K; J Imag Sci Technol 1990, V34, P136 CAPLUS

- (21) Redfield, D; Photoinduced Defects in Semiconductors 1996, P22
 (22) Sutherns, E; J Photogr Sci 1960, V8, P118 CAPLUS
 (23) Tan, J; Imag Sci J 2003, V51, P255 CAPLUS
 (24) Tani, T; J Imag Sci Technol 1995, V39, P386 CAPLUS
 (25) Zou, C; J Imag Sci Technol 1995, V39, P106 CAPLUS

L11 ANSWER 2 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:632398 CAPLUS

DN 141:181888

ED Entered STN: 06 Aug 2004

TI Silver halide photographic material containing silver halide grain having multilayers of color-forming compound and non-color-forming compound

IN Hioki, Takanori; Suzuki, Makoto

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 70 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03C001-10

ICS G03C001-28

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------------|------|----------|-----------------|----------|
| PI JP 2004219784 | A2 | 20040805 | JP 2003-7809 | 20030116 |
| PRAI JP 2003-7809 | | | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|---------------|-----|----------------|
| JP 2004219784 | ICM | G03C001-10 |
| | | ICS G03C001-28 |

JP 2004219784 FTERM 2H023/CA05; 2H023/CA06; 2H023/CA10

AB Disclosed is the Ag halide photog. material contg. a Ag halide grain having multilayers of a compd. with a color-forming group and a compd. without a color-forming group on the surface for an improvement on sensitivity. The compd. without the color-forming group has the max. absorption peak .ltoreq. ***400*** ***nm***.

ST silver halide photog multilayer color forming compd

IT Photographic emulsions

(Ag halide photog. material contg. Ag halide grain having multilayers of color-forming compd. and non-color-forming compd.)

IT ***63148-90-3*** ***210482-95-4*** 732245-76-0 732245-77-1

RL: NUU (Other use, unclassified); USES (Uses)

(Ag halide photog. material contg. Ag halide grain having multilayers of color-forming compd. and non-color-forming compd.)

L11 ANSWER 3 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:627646 CAPLUS

DN 142:102992

ED Entered STN: 05 Aug 2004

TI Photoelectron behavior of dye-sensitized AgBrI photographic material

AU Lai, Wei-dong; Zhao, Xiao-hui; Tian, Xiao-dong; Li, Xiao-wei; Fu, Guang-sheng

CS College of Physics Science and Technology, Hebei University, Baoding, 071002, Peop. Rep. China

SO Hebei Daxue Xuebao, Ziran Kexueban (2004), 24(3), 255-257

CODEN: HDXKEB; ISSN: 1000-1565

PB Hebei Daxue Bianjibu

DT Journal

LA Chinese

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

AB Microwave dielec. spectrum detection technol. (MDSD) was used to detect photoelectron current of two AgBrI samples spectrally sensitized by different dyes, which were exposed by photon in the range of ***420*** -680 ***nm***. Results showed that intensity behavior of photoelectron currents was consistent with reflection absorption spectrum of dyes, and MDSD could quickly detect the character of dyes in spectral sensitization.

ST photoelectron behavior dye sensitized silver bromide iodide photog material

IT Current density
(photoelec. current strength; photoelectron behavior of dye-sensitized AgBr,I photog. material)
IT 33628-05-6 ***532993-87-6***
RL: MOA (Modifier or additive use); USES (Uses)
(photoelectron behavior of dye-sensitized AgBrI photog. material)
IT 155124-15-5, Silver bromide iodide
RL: TEM (Technical or engineered material use); USES (Uses)
(photoelectron behavior of dye-sensitized AgBrI photog. material)

L11 ANSWER 4 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:252077 CAPLUS

DN 140:294870

ED Entered STN: 26 Mar 2004

TI Optical recording medium and optical recording/reproducing method

IN Fukuzawa, Narutoshi; Horai, Takashi; Take, Hiroshi

PA Tdk Corporation, Japan

SO U.S. Pat. Appl. Publ., 11 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM G11B007-24

INCL 430270110

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 2004058274 | A1 | 20040325 | US 2003-657205 | 20030909 |
| | JP 2004098542 | A2 | 20040402 | JP 2002-264973 | 20020911 |
| PRAI | JP 2002-264973 | A | 20020911 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|---|
| | US 2004058274 | ICM | G11B007-24 |
| | | INCL | 430270110 |
| | US 2004058274 | NCL | 430/270.110 |
| | JP 2004098542 | FTERM | 2H111/EA03; 2H111/EA12; 2H111/EA22; 2H111/EA32;
2H111/EA43; 2H111/EA48; 2H111/FA14; 2H111/FA30;
2H111/FB43; 2H111/FB63; 4H056/CA01; 4H056/CC02;
4H056/CC08; 4H056/CE03; 4H056/CE06; 4H056/DD03;
4H056/DD06; 4H056/DD19; 4H056/DD23; 4H056/FA06;
5D029/JA04; 5D029/JB28; 5D029/JB47; 5D029/JC05;
5D029/JC06; 5D090/AA01; 5D090/BB03; 5D090/CC01;
5D090/CC04; 5D090/DD02; 5D090/FF11; 5D090/KK06 |

AB The present invention provides an optical recording medium that includes a recording layer composed mainly of an org. compd. and can utilize blue-violet semiconductor laser light (***390*** to ***420*** ***nm*** in wavelength) as recording/reproducing laser light. The present invention also provides an optical recording/reproducing method using the optical recording medium. The optical recording medium comprises at least a supporting substrate; a recording layer on the supporting substrate, the recording layer contg. an org. compd. as a major component; and a light-transmitting layer on the recording layer, the light-transmitting layer being capable of transmitting laser light with a wavelength of ***390*** to ***420*** ***nm*** for recording and reproducing information. The org. compd. in the recording layer includes a trimethine cyanine dye that has the min. value n min of its refractive index n (real part of the complex refractive index) within the range of 370 to ***425*** ***nm*** and has a refractive index n of 1.2 or lower with respect to the wavelength of the recording/reproducing laser light. The org. compd., when absorbing the laser light, melts or degrades to bring about a change in the refractive index, thereby effecting recording of the information.

ST optical recording medium reproducing

IT Optical recording materials

(erasable; optical recording medium and optical recording/reproducing method)

IT Optical disks

(optical recording medium and optical recording/reproducing method)

IT Cyanine dyes

(optical recording medium and optical recording/reproducing method)

contg.)

IT ***905-96-4*** 3065-71-2 ***53213-80-2*** 675818-75-4
RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)
(trimethine cyanine dye; optical recording medium and optical
recording/reproducing method contg.)

L11 ANSWER 5 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:417962 CAPLUS

DN 138:396173

ED Entered STN: 01 Jun 2003

TI Methods and means for influencing intercellular communication and
intercellular organelle transport, and use to test potential drug
substances

IN Gerdes, Hans-Hermann; Rustom, Amin

PA Germany

SO PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM G01N033-50

ICS G01N033-68

CC 1-1 (Pharmacology)

Section cross-reference(s): 9, 13

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|------------------|----------|
| PI | WO 2003044524 | A2 | 20030530 | WO 2002-EP13140 | 20021122 |
| | WO 2003044524 | A3 | 20040212 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
UA, UG, US, UZ, VN, YU, ZA, ZM, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,
CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | DE 10157475 | A1 | 20030618 | DE 2001-10157475 | 20011123 |
| | EP 1454136 | A2 | 20040908 | EP 2002-792793 | 20021122 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| | JP 2005509446 | T2 | 20050414 | JP 2003-546103 | 20021122 |
| | US 2005064534 | A1 | 20050324 | US 2004-496126 | 20040716 |
| PRAI | DE 2001-10157475 | A | 20011123 | | |
| | WO 2002-EP13140 | W | 20021122 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|---|
| | WO 2003044524 | ICM | G01N033-50 |
| | | ICS | G01N033-68 |
| | WO 2003044524 | ECLA | G01N033/50D2; G01N033/68R |
| | JP 2005509446 | FTERM | 2G045/CB01; 2G045/FA16; 2G045/FB12; 2G045/FB13;
4B063/QA05; 4B063/QQ08; 4B063/QQ79; 4B063/QR77;
4B063/QS39; 4B063/QX02; 4C084/AA13; 4C084/AA17;
4C084/NA14; 4C084/ZA012; 4C084/ZA182; 4C084/ZA422;
4C084/ZB262; 4C084/ZB332; 4C084/ZB352; 4C084/ZB372;
4C084/ZC022; 4C084/ZC212; 4C084/ZC332 |
| | US 2005064534 | NCL | 435/040.500 |
| | | ECLA | G01N033/50D2; G01N033/68R |

AB The invention discloses a method for investigation of intercellular communication and intercellular transport; whereby, after isolation, cells are investigated for membrane tubes which contain F-actin and myosin, have a diam. of 50- ***400*** ***nm***, are generally up to 50 .mu.m long or, in individual cases, longer, and which span between the cells. The invention further discloses a method in which the organelle transport between the cells is investigated. The methodol. of the invention may be carried out in the presence of a test substance, e.g. a potential therapeutic or pharmacol. active substance.

ST intercellular communication organelle transport drug screening; membrane tube F actin myosin intercellular communication organelle transport

IT Chromogranins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
· (B; methods for investigation of intercellular communication and
intercellular organelle transport, and use in drug screening)

IT Actins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(F-; methods for investigation of intercellular communication and
intercellular organelle transport, and use in drug screening)

IT Cytometry
(FACS (fluorescence-activated cell sorting); methods for investigation
of intercellular communication and intercellular organelle transport,
and use in drug screening)

IT Histocompatibility antigens
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(HLA-A2; methods for investigation of intercellular communication and
intercellular organelle transport, and use in drug screening)

IT Animal cell line
(Hek 293; methods for investigation of intercellular communication and
intercellular organelle transport, and use in drug screening)

IT Animal cell line
(PC12; methods for investigation of intercellular communication and
intercellular organelle transport, and use in drug screening)

IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(VP22; methods for investigation of intercellular communication and
intercellular organelle transport, and use in drug screening)

IT Vesicular stomatitis virus
(VSVG; methods for investigation of intercellular communication and
intercellular organelle transport, and use in drug screening)

IT Glycoproteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(VSVG; methods for investigation of intercellular communication and
intercellular organelle transport, and use in drug screening)

IT Myosins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Va; methods for investigation of intercellular communication and
intercellular organelle transport, and use in drug screening)

IT Agglutinins and Lectins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(WGA; methods for investigation of intercellular communication and
intercellular organelle transport, and use in drug screening)

IT Antibodies and Immunoglobulins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(anti-tubulin; methods for investigation of intercellular communication
and intercellular organelle transport, and use in drug screening)

IT Tubulins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(antibody to; methods for investigation of intercellular communication
and intercellular organelle transport, and use in drug screening)

IT Infection
(bacterial; methods for investigation of intercellular communication
and intercellular organelle transport, and use in drug screening)

IT Drug targets
(cell targeting; methods for investigation of intercellular
communication and intercellular organelle transport, and use in drug
screening)

IT Kidney
(cell; methods for investigation of intercellular communication and
intercellular organelle transport, and use in drug screening)

IT Peptides, biological studies
Proteins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(conjugates, with marker substances; methods for investigation of
intercellular communication and intercellular organelle transport, and
use in drug screening)

IT Proteins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(cyan fluorescent, enhanced, VSVG-ECFP; methods for investigation of

intercellular communication and intercellular organelle transport, and use in drug screening)

IT Metabolism, animal
· (disorder; methods for investigation of intercellular communication and intercellular organelle transport, and use in drug screening)

IT Farnesylation
(farnesylated EGFP; methods for investigation of intercellular communication and intercellular organelle transport, and use in drug screening)

IT Organelle
(filopodium; methods for investigation of intercellular communication and intercellular organelle transport, and use in drug screening)

IT Peptides, biological studies

Proteins

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(fluorescent or luminescent; methods for investigation of intercellular communication and intercellular organelle transport, and use in drug screening)

IT Proteins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(green fluorescent, enhanced; methods for investigation of intercellular communication and intercellular organelle transport, and use in drug screening)

IT Brain
(hippocampus; methods for investigation of intercellular communication and intercellular organelle transport, and use in drug screening)

IT Parasite

Parasiticides
(infection; methods for investigation of intercellular communication and intercellular organelle transport, and use in drug screening)

IT Signal transduction, biological
(intercellular communication; methods for investigation of intercellular communication and intercellular organelle transport, and use in drug screening)

IT Organelle
(membrane tube; methods for investigation of intercellular communication and intercellular organelle transport, and use in drug screening)

IT Antibacterial agents

Anticholesteremic agents

Antihypertensives

Antitumor agents

Antiviral agents

Apparatus

Biological transport

Cell cycle

Cell membrane

Drug screening

Drugs

Dyes

Endocytosis

Fluorescence microscopy

Fluorescent dyes

Gene therapy

Human

Hypercholesterolemia

Hypertension

Light

Luminescent substances

Mental and behavioral disorders

Microscopes

Mitochondria

Mitosis

Neoplasm

Nervous system, disease

Nervous system agents

Pharmacology

Psychotropics

Transmission electron microscopy
(methods for investigation of intercellular communication and

IT intercellular organelle transport, and use in drug screening)
IT Myosins
IT Synaptophysin
IT RL: BSU (Biological study, unclassified); BIOL (Biological study)
IT (methods for investigation of intercellular communication and
IT intercellular organelle transport, and use in drug screening)
IT Radionuclides, biological studies
IT RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
IT (Uses)
IT (methods for investigation of intercellular communication and
IT intercellular organelle transport, and use in drug screening)
IT Organelle
IT (secretory granule; methods for investigation of intercellular
IT communication and intercellular organelle transport, and use in drug
IT screening)
IT Medical goods
IT (therapeutic devices; methods for investigation of intercellular
IT communication and intercellular organelle transport, and use in drug
IT screening)
IT Organelle
IT (transport nanotube; methods for investigation of intercellular
IT communication and intercellular organelle transport, and use in drug
IT screening)
IT Organelle
IT (transport; methods for investigation of intercellular communication
IT and intercellular organelle transport, and use in drug screening)
IT Microscopy
IT (video; methods for investigation of intercellular communication and
IT intercellular organelle transport, and use in drug screening)
IT Infection
IT (viral; methods for investigation of intercellular communication and
IT intercellular organelle transport, and use in drug screening)
IT Proteins
IT RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
IT (Uses)
IT (yellow fluorescent, enhanced; methods for investigation of
IT intercellular communication and intercellular organelle transport, and
IT use in drug screening)
IT 57-88-5, Cholesterol, biological studies
IT RL: BSU (Biological study, unclassified); BIOL (Biological study)
IT (methods for investigation of intercellular communication and
IT intercellular organelle transport, and use in drug screening)
IT 11078-21-0, Filipin 17466-45-4D, Phalloidin, conjugates with FITC or
IT TRITC 41085-99-8 47165-04-8, DAPI 76343-94-7, Latrunculin B
IT 147963-22-2 148504-34-1, Calcein AM ***216982-34-2*** , DiO
IT 220524-71-0
IT RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
IT (Uses)
IT (methods for investigation of intercellular communication and
IT intercellular organelle transport, and use in drug screening)
IT 7585-39-9D, .beta.-Cyclodextrin, Me ethers
IT RL: PAC (Pharmacological activity); BIOL (Biological study)
IT (methods for investigation of intercellular communication and
IT intercellular organelle transport, and use in drug screening)

L11 ANSWER 6 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:754712 CAPLUS
DN 137:286546
ED Entered STN: 04 Oct 2002
TI Optical data carrier containing xanthene dye as light-absorbing compound
IN in the information layer, the dyes and their preparation and use
IN Berneth, Horst; Bruder, Friedrich-Karl; Haese, Wilfried; Hagen, Rainer;
IN Hassenrueck, Karin; Kostromine, Serguei; Landenberger, Peter; Oser,
IN Rafael; Sommermann, Thomas; Stawitz, Josef-Walter; Bieringer, Thomas
PA Bayer Aktiengesellschaft, Germany
SO PCT Int. Appl., 73 pp.
DT CODEN: PIXXD2
LA Patent
LA German
IC ICM G11B007-24
IC ICS C09B011-28; C07D311-82; C07D213-20
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)

Section cross-reference(s) : 41

FAN.CNT 15

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|------------------|----------|
| PI | WO 2002077984 | A1 | 20021003 | WO 2002-EP3095 | 20020320 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | DE 10115227 | A1 | 20021219 | DE 2001-10115227 | 20010328 |
| | DE 10117462 | A1 | 20021010 | DE 2001-10117462 | 20010406 |
| | DE 10136063 | A1 | 20030213 | DE 2001-10136063 | 20010725 |
| | DE 10136064 | A1 | 20030213 | DE 2001-10136064 | 20010725 |
| | DE 10202571 | A1 | 20030731 | DE 2002-10202571 | 20020124 |
| | US 2002155381 | A1 | 20021024 | US 2002-102586 | 20020320 |
| | WO 2002086878 | A2 | 20021031 | WO 2002-EP3071 | 20020320 |
| | WO 2002086878 | A3 | 20030227 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | US 2003096192 | A1 | 20030522 | US 2002-102588 | 20020320 |
| | EP 1377974 | A1 | 20040107 | EP 2002-724250 | 20020320 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | EP 1377975 | A2 | 20040107 | EP 2002-727443 | 20020320 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | EP 1377978 | A2 | 20040107 | EP 2002-737887 | 20020320 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | CN 1515002 | A | 20040721 | CN 2002-810906 | 20020320 |
| | CN 1516872 | A | 20040728 | CN 2002-810887 | 20020320 |
| | JP 2004523395 | T2 | 20040805 | JP 2002-575938 | 20020320 |
| | JP 2004524198 | T2 | 20040812 | JP 2002-584311 | 20020320 |
| | TW 223252 | B1 | 20041101 | TW 2002-91105381 | 20020320 |
| | JP 2004534344 | T2 | 20041111 | JP 2002-578290 | 20020320 |
| | US 2005042407 | A1 | 20050224 | US 2004-953235 | 20040929 |
| PRAI | DE 2001-10115227 | A | 20010328 | | |
| | DE 2001-10117462 | A | 20010406 | | |
| | DE 2001-10136063 | A | 20010725 | | |
| | DE 2001-10136064 | A | 20010725 | | |
| | DE 2002-10202571 | A | 20020124 | | |
| | DE 2001-10117461 | A | 20010406 | | |
| | DE 2001-10117463 | A | 20010406 | | |
| | DE 2001-10117464 | A | 20010406 | | |
| | DE 2001-10124585 | A | 20010521 | | |
| | DE 2001-10140165 | A | 20010822 | | |
| | EP 2001-123810 | A | 20011004 | | |
| | EP 2001-130527 | A | 20011221 | | |
| | DE 2002-10200484 | A | 20020109 | | |
| | EP 2002-5505 | A | 20020311 | | |
| | US 2002-101793 | A3 | 20020320 | | |
| | WO 2002-EP3071 | W | 20020320 | | |
| | WO 2002-EP3094 | W | 20020320 | | |
| | WO 2002-EP3095 | W | 20020320 | | |

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

| | | |
|---------------|-------|--|
| WO 2002077984 | ICM | G11B007-24 |
| WO 2002077984 | ICS | C09B011-28; C07D311-82; C07D213-20 |
| | ECLA | C07D217/14; C07D221/04B; C07D311/12; C07D311/80;
C07D455/04; C07D491/04+311B+221B; C07F015/06B;
C09B023/00S; C09B023/04; C09B023/10B; C09B029/00H2;
C09B029/00H10; C09B029/36; C09B044/10; C09B047/04B;
C09B047/08B; C09B047/26; C09B069/02; C09K009/02;
G11B007/0045R; G11B007/24; G11B007/244; G11B007/247;
G11B007/248; G11B007/249; G11B007/254; G11B007/26 |
| DE 10115227 | ECLA | C07D217/14; C07D221/04B; C07D311/12; C07D311/80;
C07D455/04; C07D491/04+311B+221B; C07F015/06B;
C09B023/00S; C09B023/04; C09B023/10B; C09B029/00H2;
C09B029/00H10; C09B029/36; C09B044/10; C09B047/04B;
C09B047/08B; C09B047/26; C09K009/02; G11B007/0045R;
G11B007/24; G11B007/244; G11B007/247; G11B007/248;
G11B007/249; G11B007/254; G11B007/26 |
| DE 10117462 | ECLA | C09B069/02; G11B007/0045R; G11B007/24; G11B007/244;
G11B007/247; G11B007/248; G11B007/254; G11B007/26 |
| DE 10136063 | ECLA | C09B069/02; G11B007/0045R; G11B007/24; G11B007/244;
G11B007/247; G11B007/248; G11B007/254; G11B007/26 |
| DE 10136064 | ECLA | C09B044/10; C09B069/02; G11B007/0045R; G11B007/24;
G11B007/244; G11B007/247; G11B007/248; G11B007/254;
G11B007/26 |
| DE 10202571 | ECLA | C09B069/02; G11B007/0045R; G11B007/24; G11B007/244;
G11B007/247; G11B007/248; G11B007/254; G11B007/26 |
| US 2002155381 | NCL | 430/270.150 |
| | ECLA | C07D217/14; C07D221/04B; C07D311/12; C07D311/80;
C07D455/04; C07D491/04+311B+221B; C07F015/06B;
C09B023/00S; C09B023/04; C09B023/10B; C09B029/00H2;
C09B029/00H10; C09B029/36; C09B044/10; C09B047/04B;
C09B047/08B; C09B047/26; C09K009/02; G11B007/0045R;
G11B007/24; G11B007/244; G11B007/247; G11B007/248;
G11B007/249; G11B007/254; G11B007/26 |
| WO 2002086878 | ECLA | C07D217/14; C07D221/04B; C07D311/12; C07D311/80;
C07D455/04; C07D491/04+311B+221B; C07F015/06B;
C09B023/00S; C09B023/04; C09B023/10B; C09B029/00H2;
C09B029/00H10; C09B029/36; C09B044/10; C09B047/04B;
C09B047/08B; C09B047/26; C09K009/02; G11B007/0045R;
G11B007/24; G11B007/244; G11B007/247; G11B007/248;
G11B007/249; G11B007/254; G11B007/26 |
| US 2003096192 | NCL | 430/270.150 |
| | ECLA | C07D217/14; C07D221/04B; C07D311/12; C07D311/80;
C07D455/04; C07D491/04+311B+221B; C07F015/06B;
C09B023/00S; C09B023/04; C09B023/10B; C09B029/00H2;
C09B029/00H10; C09B029/36; C09B044/10; C09B047/04B;
C09B047/08B; C09B047/26; C09B069/02; C09K009/02;
G11B007/0045R; G11B007/24; G11B007/244; G11B007/247;
G11B007/248; G11B007/249; G11B007/254; G11B007/26 |
| JP 2004523395 | FTERM | 2H111/EA03; 2H111/EA37; 2H111/EA39; 2H111/FA01;
2H111/FA11; 2H111/FA12; 2H111/FA14; 2H111/FA15;
2H111/FB42 |
| JP 2004524198 | FTERM | 2H111/EA03; 2H111/EA12; 2H111/EA22; 2H111/EA32;
2H111/FA01; 2H111/FA12; 2H111/FA14; 2H111/FA21;
2H111/FA37; 2H111/FB42; 2H111/FB43; 2H111/FB46;
2H111/FB50; 2H111/GA02; 2H111/GA07; 5D029/JA04;
5D029/JC01; 5D121/AA01; 5D121/AA03; 5D121/JJ07 |
| JP 2004534344 | FTERM | 2H111/EA03; 2H111/EA12; 2H111/EA22; 2H111/EA25;
2H111/EA32; 2H111/EA43; 2H111/FA01; 2H111/FA14;
2H111/FA15; 2H111/FA21; 2H111/FB44; 2H111/FB45;
2H111/GA02; 2H111/GA03; 2H111/GA07; 4H056/CA01;
4H056/CA02; 4H056/CC05; 4H056/CC08; 4H056/CD05;
4H056/CE03; 4H056/CE07; 4H056/DD03; 4H056/DD07;
4H056/DD15; 4H056/DD19; 4H056/DD29; 5D029/JA04;
5D029/JB28; 5D029/JB46; 5D029/JB47; 5D029/LA02;
5D029/LA11; 5D029/LB07; 5D029/LB12; 5D029/LB17;
5D029/LC08; 5D121/AA01; 5D121/AA04; 5D121/EE02;
5D121/EE03; 5D121/EE22 |
| US 2005042407 | NCL | 428/064.400 |
| | ECLA | C07D217/14; C07D221/04B; C07D311/12; C07D311/80;
C07D455/04; C07D491/04+311B+221B; C07F015/06B;
C09B023/00S; C09B023/04; C09B023/10B; C09B029/00H2;
C09B029/00H10; C09B029/36; C09B044/10; C09B047/04B; |

C09B047/08B; C09B047/26; C09B069/02; C09K009/02;
G11B007/0045R; G11B007/24; G11B007/244; G11B007/247;
G11B007/248; G11B007/249; G11B007/254; G11B007/26

OS MARPAT 137:286546

AB The invention relates to an optical data carrier contg. a preferably transparent substrate which has optionally been coated with at least one reflection layer. An information layer which can be written with light, optionally at least one reflection layer and optionally a protective layer or another substrate or a covering layer are applied to the surface of the substrate. The data carrier can be written and read with blue or red light, preferably laser light. The information layer contains at least one xanthene dye contg. at least two anionic groups and having, as a counterion, at least one cation contg. at least one conjugated .pi.-system having at least 6 .pi.-electrons as a light-absorbing compd.; the layer optionally contains a binding agent. The dye cation cannot be benzyltrimethylammonium, benzyltriethylammonium, tetraphenylphosphonium, butyltriphenylphosphonium and ethyltriphenylphosphonium. The xanthene dye has an absorption max. of ***420*** -650 ***nm***. The dyes, their prepn. and use, and the prepn. of the optical data carrier are also claimed.

ST optical data carrier disk xanthene dye light absorber

IT Optical ROM disks

(optical data carriers contg. xanthene dyes as light-absorbing compd. in information recording layer)

IT Dyes

(xanthene; prepn. of xanthene dyes and use as light-absorbing compd. in information layer of optical data carriers)

IT 465544-25-6P 465544-27-8P 465544-28-9P 465544-29-0P 465544-30-3P
465544-31-4P 465544-32-5P 465544-34-7P 465544-35-8P 465544-36-9P
465544-37-0P 465544-39-2P 465544-41-6P 465544-42-7P 465544-43-8P
465544-44-9P 465544-46-1P 465544-47-2P 465544-49-4P 465544-51-8P
465544-52-9P 465544-54-1P 465544-56-3P 465544-59-6P 465544-61-0P
465544-63-2P 465544-64-3P 465544-67-6P 465547-82-4P 465547-83-5P
465547-85-7P 465547-86-8P 465547-88-0P 465547-89-1P
465547-91-5P

RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(prepn. of xanthene dyes and use as light-absorbing compd. in information layer of optical data carriers)

IT 1282-37-7, Ferrocenium tetrafluoroborate 465544-24-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of xanthene dyes and use as light-absorbing compd. in information layer of optical data carriers)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Ciba Geigy Ag; EP 0805441 A 1997 CAPLUS
- (2) Ciba Geigy Ag; EP 0805441 A 1997 CAPLUS
- (3) Edward Gurr Ltd; GB 1057594 A 1967 CAPLUS
- (4) Edward Gurr Ltd; GB 1057594 A 1967 CAPLUS
- (5) Ici Plc; EP 0542420 A 1993 CAPLUS
- (6) Ici Plc; EP 0542420 A 1993 CAPLUS
- (7) Neckers, D; US 4924009 A 1990 CAPLUS
- (8) Neckers, D; US 4924009 A 1990 CAPLUS
- (9) Sato, T; US 4656121 A 1987 CAPLUS
- (10) Sato, T; US 4656121 A 1987 CAPLUS
- (11) Wariishi, K; US 6020105 A 2000 CAPLUS
- (12) Wariishi, K; US 6020105 A 2000 CAPLUS

L11 ANSWER 7 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:689919 CAPLUS

DN 137:239636

ED Entered STN: 12 Sep 2002

TI Silver halide color photographic films and method for color image formation using the same

IN Kawai, Kiyoshi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 46 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03C001-035

ICS G03C001-46; G03C007-18; G03C007-20; G03C007-305; G03C007-413

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 2002258426 | A2 | 20020911 | JP 2001-55422 | 20010228 |
| PRAI | JP 2001-55422 | | 20010228 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|---|
| | JP 2002258426 | ICM | G03C001-035 |
| | | ICS | G03C001-46; G03C007-18; G03C007-20; G03C007-305;
G03C007-413 |

AB The title photog. film has coupler-contg. silver halide emulsion layers of ***400*** -490 ***nm*** max. spectral sensitivity, .gt;req.3 coupler-contg. silver halide emulsion layers of 500-600 nm max. spectral sensitivity, coupler-contg. silver halide emulsion layers of 600-790 nm max. spectral sensitivity, and light-insensitive layers on a support, wherein the coupler-contg. silver halide emulsion layers of 500-600 nm max. spectral sensitivity has a layer of which av. grain diam. is the smallest among the layers and a layer of which av. grain diam. is larger than the av. grain diameter of the smallest diam. layer and disposed in both sides of the smallest grain diam. layer and wherein the light-insensitive layer is not disposed at closer to the support than the coupler-contg. silver halide emulsion layers of 600-790 nm max. spectral sensitivity. The film provides the good image quality under various exposure light conditions and the images of the high color reprodn. and the sharpness.

ST silver halide color photog film image

IT Photographic couplers
Photographic emulsions
Photographic films

(silver halide color photog. films and method for color image formation using same)

IT 903-19-5 1330-78-5, Tricresyl phosphate 36753-13-6 57583-54-7
65206-18-0 76379-53-8 92991-05-4 93927-28-7 98835-00-8
99119-46-7 100780-57-2 104166-82-7 104335-45-7 ***106518-55-2***
113436-96-7 121071-23-6 142086-32-6 154444-44-7
155124-15-5, Silver bromide iodide ***166444-20-8*** 172903-19-4
189702-75-8 ***224314-59-4*** 457892-98-7

RL: TEM (Technical or engineered material use); USES (Uses)

(coupler-contg. silver halide emulsion layers of 500-600 nm max. spectral sensitivity in photog. films)

L11 ANSWER 8 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:387561 CAPLUS

DN 136:393191

ED Entered STN: 23 May 2002

TI High sensitive color photographic material containing spectral absorption-controlled silver halide grains

IN Sakurada, Masami; Morimoto, Kiyoshi; Ueda, Fuminori; Yamada, Toru

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 81 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03C007-20

ICS G03C001-015; G03C001-28; G03C001-38; G03C001-74; G03C007-36;
G03C007-388

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2002148767 | A2 | 20020522 | JP 2001-193596 | 20010626 |
| | JP 2002287309 | A2 | 20021003 | JP 2001-159605 | 20010528 |
| | CN 1340739 | A | 20020320 | CN 2001-130859 | 20010828 |
| | US 2002177087 | A1 | 20021128 | US 2001-939843 | 20010828 |
| | US 6610466 | B2 | 20030826 | | |
| PRAI | JP 2000-258159 | A | 20000828 | | |
| | JP 2001-9548 | A | 20010117 | | |
| | JP 2001-193596 | A | 20010626 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|------------|---|
| JP 2002148767 | ICM
ICS | G03C007-20
G03C001-015; G03C001-28; G03C001-38; G03C001-74;
G03C007-36; G03C007-388 |
| US 2002177087 | NCL | 430/505.000 |
| | ECLA | G03C001/12; G03C007/30L; G03C007/30M; G03C007/30S;
G03C007/388 |

OS MARPAT 136:393191

AB The material has .gtoreq.1 layer contg. an emulsion manufd. by mixing Ag halide dispersions with light absorption intensity (A) .gtoreq.60 at spectral absorption max. wavelength (B) <500 nm or with A .gtoreq.100 at B .gtoreq.500 nm and emulsified dispersions. The emulsion shows spectral absorption area intensity change .ltoreq.10% at ***400*** -700 ***nm*** when stirred at 40.degree. for 30 min or when aged at 60.degree. and 30% humidity for 3 days. The material having each .gtoreq.2 red-, green-, and blue-sensitive layers with different sensitivity, in which .gtoreq.1 higher sensitive layer (C) of them, contg. the obtained emulsion, is characterized by that sensitivity of a lower sensitive emulsion layer adjacent to the layer C is .gtoreq.60% of that of the layer C or by that total Ag content is 0.1-7.0 g/m². Sensitizing dyes are stably adsorbed on the Ag halide grains even when org. solvents are contained.

ST photog emulsion spectral absorption sensitizing dye; emulsion dispersion surfactant org solvent coupler

IT Photographic emulsions
(silver halide photog.emulsion with controlled spectral absorption)

IT 54942-74-4 95050-16-1 96514-07-7

RL: MOA (Modifier or additive use); USES (Uses)
(coupler; photog. emulsion manufd. by mixing with dispersion contg.
org. solvent, surfactant, or coupler)

IT 84-74-2, Dibutyl phthalate 2528-39-4, Trihexyl phosphate
RL: MOA (Modifier or additive use); USES (Uses)

(photog. emulsion manufd. by mixing with dispersion contg. org.
solvent, surfactant, or coupler)

IT 317816-59-4 381677-20-9 427901-08-4 427901-09-5 427901-10-8
427901-11-9 427901-12-0 427901-13-1 ***427901-14-2***
427901-15-3

RL: TEM (Technical or engineered material use); USES (Uses)
(sensitizing dye; photog. emulsion contg. silver halide grain with
multiple sensitizing dye-adsorbed layers)

IT 577-11-7 1323-19-9 111763-27-0

RL: MOA (Modifier or additive use); USES (Uses)
(surfactant; photog. emulsion manufd. by mixing with dispersion contg.
org. solvent, surfactant, or coupler)

L11 ANSWER 9 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:760361 CAPLUS

DN 135:310833

ED Entered STN: 19 Oct 2001

TI Silver halide emulsion containing super sensitizer, photographic film and
photothermographic material using it

IN Ikemizu, Hiroshi; Kagawa, Nobuaki

PA Konica Co., Japan

SO Jpn. Kokai Tokkyo Koho, 63 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03C001-498

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| JP 2001290236 | A2 | 20011019 | JP 2000-103237 | 20000405 |
| PRAI JP 2000-103237 | | 20000405 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|---------------|-----|-------------|
| JP 2001290236 | ICM | G03C001-498 |
|---------------|-----|-------------|

| | | |
|----------------------|--|--|
| OS MARPAT 135:310833 | | |
|----------------------|--|--|

AB The emulsion contains .gtoreq.1 Het1[J1T1SC(NRaRb):N+RcRd]n1.M1k1 (I; Het1 = Ag halide adsorbing group except arom. hydrocarbon and arom. heterocycle; T1 = bivalent linkage comprising an aliph. hydrocarbon group or a bond; J1 = .gtoreq.1 O, S, or N-contg. bivalent linkage or the bond; Ra, Rb, Rc, Rd = H, acyl, aliph. hydrocarbon, aryl, heterocycle, atoms except C, substituent with atoms except C as a linkage; Ra and Rb, Rc and Rd, Ra and Rc, or Rb and Rd may form a N-contg. heterocycle; n1 = 1-3; M1 = charge neutralizing ion; k1 = the no. of the charge neutralizing ion), Het2[J2T2SC(NRaRb):N+RcRd]n2.M2k2 (II; Het2 = substituent; T2 = T1; J2 = J1; Ra, Rb, Rc, Rd = H, acyl, aliph. hydrocarbon, aryl, heterocycle, substituent with atoms except C as the linkage; Ra and Rb, Rc and Rd, Ra and Rc, or Rb and Rd may form the N-contg. heterocycle; n2 = n1; M2 = M1; k2 = k1), or Het3[J3T3OC(NRaRb):N+RcRd]n3.M3k3 (III; Het3 = substituent; T3 = T1; J3 = J1; Ra, Rb, Rc, Rd = the same as those of I; Ra and Rb, Rc and Rd, Ra and Rc, or Rb and Rd may form the N-contg. heterocycle; n3 = n1; M3 = M1; k3 = k1). The photothermog. material has an image forming layer contg. an org. Ag salt, a photosensitive Ag halide grain or its component, a reducing agent, and .gtoreq.1 of I, II, and III on a support. The photog. emulsion contains Het4[J4T4SC(NRaRb):N+RcRd]n4.M4k4 (Het4 = arom. hydrocarbon, arom. heterocycle; T4 = T1; J4 = J1; Ra, Rb, Rc, Rd = the same as those of I; Ra and Rb, Rc and Rd, Ra and Rc, or Rb and Rd may form the N-contg. heterocycle; n4 = n1; M4 = M1; k4 = k1) and spectrally sensitized at ***400*** -700 ***nm*** by a sensitizing dye. The Ag halide photog. material has an emulsion layer contg. the above emulsion on a support. Those materials showed high sensitivity at blue to IR region and reduced sensitivity change due to exposure variation.

ST photog emulsion aminium super sensitizer; photothermog material aminium super sensitizer

IT Photographic emulsions

(photog. emulsion contg. aminium compd. super sensitizer)

IT Photographic films

(photog. film using silver halide emulsion contg. aminium compd. super sensitizer)

IT Photothermographic copying

(photothermog. material using silver halide emulsion contg. aminium compd. super sensitizer)

IT Photographic sensitizers

(supersensitizers; photog. emulsion contg. aminium compd. super sensitizer)

IT 367277-77-8 367277-78-9 367277-80-3 367277-81-4 367277-83-6

367277-84-7 367277-85-8 367277-86-9 367277-87-0

RL: DEV (Device component use); USES (Uses)

(photog. emulsion contg. aminium compd. super sensitizer)

IT ***65293-95-0*** 75260-71-8 138450-96-1 252988-64-0 327156-72-9

327156-74-1

RL: DEV (Device component use); USES (Uses)

(sensitizing dye; photog. emulsion contg. aminium compd. super sensitizer)

L11 ANSWER 10 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:709909 CAPLUS

DN 135:280428

ED Entered STN: 28 Sep 2001

TI Silver halide color photographic material of which colors are controlled on base of Macbeth chart

IN Hioki, Katsuhiko

PA Konica Co., Japan

SO Jpn. Kokai Tokkyo Koho, 45 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03C007-20

ICS G03C001-035; G03C001-74; G03C007-18; G03C007-305

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------|------|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| PI JP 2001264942 | A2 | 20010928 | JP 2000-70295 | 20000314 |

PRAI JP 2000-70295

20000314

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

JP 2001264942 ICM G03C007-20
ICS G03C001-035; G03C001-74; G03C007-18; G03C007-305
AB The material has each .gtoreq.2 red-, green-, and blue-sensitive layers and light insensitive layers on one side of a support, is characterized by the following conditions: (1) total of chroma of each blue, green, red, yellow, magenta, cyan patch on a print is .gtoreq.330, which is obtained by photographing Macbeth chart (24 patch) at 4800 K, developing, and printing; (2) total of color difference between each 18 colored patch original except neutral gray and hue angle is .ltoreq.120, where each color is defined by CIE 1976 L*a*b* color space and there are the following relationships between chroma (C*ab) and hue angle (hab): $C*ab = (a^2 + b^2)^{1/2}$ and $hab = \arctan(b/a)$. The material is also claimed, characterized by satisfying the following conditions: (a) $\lambda.R = 600-680$ nm (.lambda.R = barycentric wavelength of optical sensitivity distribution of .gtoreq.1 red-sensitive layer); (b) $\lambda.G = 500-580$ nm (.lambda.G = barycentric wavelength of optical sensitivity distribution of .gtoreq.1 green-sensitive layer); (c) $\lambda.B = ***400*** - 480$ ***nm*** (.lambda.B = barycentric wavelength of optical sensitivity distribution of .gtoreq.1 blue-sensitive layer); (d) 500 nm < $\lambda.R < 560$ nm (.lambda.-R = barycentric wavelength of optical sensitivity distribution of interimage effect magnitude of the red-sensitive layer effected by the other layer at 500-600 nm); (e) $\lambda.G - \lambda.R$.gtoreq.10 ***nm*** ; (f) ***400*** ***nm*** < $\lambda.G1 < 460$ nm (.lambda.-G1 = barycentric wavelength of optical sensitivity distribution of interimage effect magnitude of the green-sensitive layer effected by the other layer at ***400*** -500 ***nm***); or (f') 620 nm < $\lambda.G2 < 700$ nm (.lambda.-G2 = barycentric wavelength of optical sensitivity distribution of interimage effect magnitude of the green-sensitive layer effected by the other layer at 600-700 nm); and (g) $\lambda.B - \lambda.G1$.gtoreq.10 nm; or (g') $\lambda.R - \lambda.G2$.ltoreq.-10 nm;. It shows improved color and image reprodn. quality and Ag bleaching, preventing fog due to natural radiation.

ST photog emulsion chromatics hue angle; interimage effect photog film; barycentric wavelength spectral sensitivity distribution photog
IT Photographic films
(photog. film with controlled chromatics, hue angle, spectral sensitivity distribution barycentric wavelength, or interimage effect)
IT 80567-35-7 125981-35-3 161321-92-2 261638-80-6
RL: DEV (Device component use); USES (Uses)
(DIR coupler; photog. film with controlled chromatics, hue angle, spectral sensitivity distribution barycentric wavelength, or interimage effect)
IT 7440-22-4, Silver, uses
RL: DEV (Device component use); USES (Uses)
(colloidal; photog. film with controlled chromatics, hue angle, spectral sensitivity distribution barycentric wavelength, or interimage effect)
IT 27268-50-4 33628-08-9 59137-43-8 68392-94-9 92745-88-5
139536-86-0 148647-43-2 161710-77-6 199338-28-8
207274-77-9
RL: DEV (Device component use); USES (Uses)
(sensitizing dye; photog. film with controlled chromatics, hue angle, spectral sensitivity distribution barycentric wavelength, or interimage effect)

L11 ANSWER 11 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:513400 CAPLUS
DN 133:142563
ED Entered STN: 28 Jul 2000
TI Fragmentable electron donor compounds with broad blue spectral sensitization
IN Reed, Kenneth J.; Pepe, Joseph P.; Friday, James A.; Eikenberry, Jon N.; Chang, Yun C.; Muenter, Annabel A.; Lenhard, Jerome R.
PA Eastman Kodak Company, USA
SO Eur. Pat. Appl., 84 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM G03C001-10
ICS G03C001-29
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | EP 1022609 | A1 | 20000726 | EP 2000-200164 | 20000117 |
| | EP 1022609 | B1 | 20050810 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO | | | | |
| | US 6509144 | B1 | 20030121 | US 1999-236821 | 19990125 |
| | JP 2000221628 | A2 | 20000811 | JP 2000-17928 | 20000124 |
| PRAI | US 1999-236821 | A | 19990125 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|------------|-------|---|
| | EP 1022609 | ICM | G03C001-10 |
| | | ICS | G03C001-29 |
| | EP 1022609 | ECLA | G03C001/10; G03C001/29 |
| | US 6509144 | NCL | 430/567.000; 430/569.000; 430/572.000; 430/574.000;
430/577.000; 430/578.000; 430/580.000; 430/581.000;
430/583.000; 430/586.000; 430/600.000 |
| | | ECLA | G03C001/10; G03C001/29 |

OS MARPAT 133:142563

AB This invention comprises a photog. element comprising a support and .gtoreq.1 blue sensitive Ag halide emulsion layer contg. a tabular grain Ag halide emulsion, or an emulsion in which the halide content is at least 50% chloride and .ltoreq.5% iodide, wherein the emulsion is spectrally sensitized with .gtoreq.1 dye providing a peak sensitization between 446 and 500 nm and .gtoreq.1 dye providing a peak sensitization between ***400*** and 445 ***nm*** and addnl. sensitized with a fragmentable electron donor of the formula: X-Y'. Or an electron donor which contains an -XY' moiety; wherein X is an electron donor moiety, Y' is a leaving proton H or a leaving group Y, with the proviso that if Y' is H a base, .beta.-, is covalently linked directly or indirectly to X. And wherein: (1) X-Y' has an oxidn. potential between 0 and .apprx.1.4 V; and (2) the oxidized form of X-Y' fragments to give the radical X.bul. and the leaving fragment Y'; and, optionally, (3) the radical X.bul. has an oxidn. potential .gtoreq.-0.7V (i.e., equal to or more neg. than .apprx.-0.7V).

ST fragmentable electron donor broad blue spectral sensitization

IT Electron donors

Oxidation potential

Photographic couplers

Photographic emulsions

Photographic films

Photographic sensitization

(photog. element having support and silver halide emulsion layer contg. fragmentable electron donor compds. with blue spectral sensitization)

IT 149-45-1, Disodium 4,5-Dihydroxy-1,3-benzenedisulfonate

RL: RCT (Reactant); RACT (Reactant or reagent)

(18photog. element having support and silver halide emulsion layer contg. fragmentable electron donor compds. with blue spectral sensitization)

IT 61600-15-5 93966-57-5

RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)

(fragmentable electron donor compds. with blue spectral sensitization in silver halide photog. element contg. UV filter layer of)

IT 23568-98-1 51599-31-6 65749-35-1 102604-67-1 165662-39-5

220039-40-7

RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)

(fragmentable electron donor compds. with blue spectral sensitization in silver halide photog. element contg. cyan layer of)

IT 167684-63-1 168689-49-4 264873-87-2

RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)

(fragmentable electron donor compds. with blue spectral sensitization in silver halide photog. element contg. fast yellow layer of)

IT 30818-18-9 ***52049-36-2*** 65293-90-5 150779-67-2 279686-46-3

RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)

(fragmentable electron donor compds. with blue spectral sensitization in silver halide photog. element contg. magenta layer of)

IT 903-19-5 130016-98-7
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(fragmentable electron donor compds. with blue spectral sensitization in silver halide photog. element contg. yellow filter layer of)

IT 60247-61-2 217439-60-6
RL: MOA (Modifier or additive use); NUU (Other use, unclassified); USES (Uses)
(photog. element having silver halide emulsion layer contg. fragmentable electron donor compds. and gelatin support coated with yellow-forming couplers)

IT 26750-50-5, Bis(vinylsulfonylmethyl)ether
RL: MOA (Modifier or additive use); NUU (Other use, unclassified); USES (Uses)
(photog. element having silver halide emulsion layer contg. fragmentable electron donor compds. with blue spectral sensitization on gelatin support hardened with)

IT 55526-96-0 60507-44-0 67132-51-8 106392-12-5, PLURONIC 31R1
119342-48-2 130017-19-5 141766-84-9 143727-19-9 172210-73-0
207232-04-0 210584-95-5
RL: MOA (Modifier or additive use); NUU (Other use, unclassified); USES (Uses)
(photog. element having support and silver halide emulsion layer contg. fragmentable electron donor compds. with blue spectral sensitization)

IT 194229-62-4 194287-95-1 194294-24-1 219807-83-7 220065-67-8
224294-14-8 275824-42-5
RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(photog. element having support and silver halide emulsion layer contg. fragmentable electron donor compds. with blue spectral sensitization)

IT 263406-35-5
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(photog. element having support and silver halide emulsion layer contg. fragmentable electron donor compds. with blue spectral sensitization)

IT 15002-31-0, Tetrapotassium hexacyanoruthenate(4-)
RL: RCT (Reactant); RACT (Reactant or reagent)
(photog. element having support and silver halide emulsion layer contg. fragmentable electron donor compds. with blue spectral sensitization)

IT 155124-15-5, Silver bromide iodide
RL: TEM (Technical or engineered material use); USES (Uses)
(photog. element having support and silver halide emulsion layer contg. fragmentable electron donor compds. with blue spectral sensitization)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Kodak; US 5576157 A CAPLUS
- (2) Kodak; US 5747236 A CAPLUS
- (3) Kodak; EP 0677782 A 1995 CAPLUS
- (4) Kodak; EP 0786691 A 1997 CAPLUS

L11 ANSWER 12 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:686595 CAPLUS
DN 131:315907
ED Entered STN: 28 Oct 1999
TI Radiographic product exhibiting reduced dye stain
IN Friour, Gerard A.; Thomas, Francoise M.
PA Eastman Kodak Company, USA
SO U.S., 16 pp., Cont.-in-part of U.S. Ser. No. 565,496, abandoned.
CODEN: USXXAM
DT Patent
LA English
IC ICM G03C001-14
ICS G03C001-815
INCL 430583000
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI US 5972590 | A | 19991026 | US 1997-811751 | 19970306 |
| PRAI US 1995-565496 | B2 | 19951130 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|---|--|
| US 5972590 | ICM | G03C001-14 |
| | ICS | G03C001-815 |
| | INCL | 430583000 |
| US 5972590 | NCL | 430/583.000; 430/139.000; 430/567.000; 430/933.000;
430/966.000 |
| | ECLA | G03C001/16; G03C001/815C |
| OS | MARPAT 131:315907 | |
| AB | The present invention concerns silver halide photog. products that are assocd. with x-ray intensifying screens and used in radiog. More precisely, the invention concerns with a radiog. system contg. at least one layer of spectrally sensitized tabular grain silver halide emulsion and an intensifying screen. A radiog. product is described which makes it possible to obtain an image with no residual yellow coloring. The radiog. product comprises .gtoreq.1 photosensitive Ag halide tabular grain emulsion spectrally sensitized with a spectral sensitizing dye in the blue region having an emission peak between ***400*** and 500 ***nm***, and an optical brightener derived from 4,4'-diamino-stilbene di-sulfonic acid having .gtoreq.3 anionic sulfo groups, put in the photosensitive layer of the radiog. products or in .gtoreq.1 layer situated between the photo-sensitive layer and the support. The radiog. product is applicable to radiog. systems including 1 or 2 intensifying screens. | |
| ST | radiog optical brightener Phorwite Tinopal monomethine cyanine dye stain; x ray film diaminostilbene disulfonic acid spectral sensitizer | |
| IT | Polyesters, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(Estar; x-ray film exhibiting reduced dye stain contg. film support made of) | |
| IT | Cyanine dyes
(monomethine; x-ray film contg. spectral sensitizers and optical brighteners for reduced dye stain) | |
| IT | Fluorescent brighteners
(optical brightener for emulsion layer of x-ray film exhibiting reduced dye stain) | |
| IT | Photographic sensitizers
Radiographic films
Radiography
(x-ray film contg. spectral sensitizers and optical brighteners for reduced dye stain) | |
| IT | Polyesters, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(x-ray film exhibiting reduced dye stain contg. film support made of) | |
| IT | 86271-35-4
RL: MOA (Modifier or additive use); USES (Uses)
(Phorwite; optical brightener for emulsion layer of x-ray film exhibiting reduced dye stain) | |
| IT | 41098-56-0
RL: MOA (Modifier or additive use); USES (Uses)
(Tinopal; optical brightener for emulsion layer of x-ray film exhibiting reduced dye stain) | |
| IT | 23729-34-2, WIT 2020
RL: MOA (Modifier or additive use); USES (Uses)
(WIT 2020; optical brightener for emulsion layer of x-ray film exhibiting reduced dye stain) | |
| IT | 26750-50-5, Bis(vinylsulfonylmethyl)ether
RL: RCT (Reactant); RACT (Reactant or reagent)
(hardening agent for x-ray film exhibiting reduced dye stain) | |
| IT | 247578-58-1 247578-59-2
RL: MOA (Modifier or additive use); USES (Uses)
(optical brightener for emulsion layer of x-ray film exhibiting reduced dye stain) | |
| IT | 63149-36-0 67132-50-7 68019-06-7 98255-00-6 161710-77-6
178744-22-4 178744-23-5 178744-24-6 178744-25-7 ***247578-57-0***
RL: MOA (Modifier or additive use); USES (Uses)
(spectral sensitizing dye for x-ray film exhibiting reduced dye stain) | |
| IT | 7785-23-1, Silver bromide
RL: TEM (Technical or engineered material use); USES (Uses)
(x-ray film exhibiting reduced dye stain and contg. spectrally sensitized tabular grain of) | |

IT 25038-59-9, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(x-ray film exhibiting reduced dye stain contg. film support made of)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

- RE
(1) Anon; Research Disclosure 1983, V231, P249
(2) Daubendiek; US 4639411 1987 CAPLUS
(3) Hoyen; US 5238793 1993 CAPLUS
(4) Ishikawa; US 4587195 1986 CAPLUS
(5) Kuse; US 4232112 1980 CAPLUS
(6) McFall; US 2933390 1960 CAPLUS
(7) Sugimoto; US 4609621 1986
(8) Van Doorselaer; US 4130428 1978 CAPLUS

L11 ANSWER 13 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:645358 CAPLUS

DN 132:42668

ED Entered STN: 11 Oct 1999

TI Hole trapping in mixed benzoxazolo-benzimidazolo carbocyanine spectral sensitized AgBrI (111) tabular microcrystals

AU De Keyzer, R.; Callant, P.

CS Agfa-Gevaert N. V., Mortsel, 2640, Belg.

SO International Symposium on Silver Halide Imaging: Recent Advances and Future Opportunities in Silver Halide Imaging, Final Program and Proceedings of IS&T/SPSTJ's, Victoria, B. C., Oct. 27-30, 1997 (1997), 85-87 Publisher: Society for Imaging Science and Technology, Springfield, Va.

CODEN: 68GFA7

DT Conference

LA English

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

AB The optical and photog. behavior was investigated of J-aggregated benzoxazolo carbocyanine dyes (D1 and D2) in the presence of low surface concns. of benzimidazolo carbocyanine dyes (S1 and S2). Diffuse reflectance spectra of the emulsions and the coatings (DRS) and photog. sensitivity on ***405*** ***nm*** and 535 ***nm*** were examd. as a function of concn. of the supersensitizing dye and the dye structure on primitive AgBrI (111) tabular crystals. In the absence of the supersensitizing dye a large degree of intrinsic as well as spectral desensitization is detected for dye 1 and 2. The addn. of 1 % of the supersensitizing dye (relative to the spectral sensitizer) increases sharply the intrinsic and spectral sensitivity without major changes in the optical absorption spectra of the emulsion. Our expts. confirm the importance of supersensitization through energy transfer mechanism but also that one has to take into account a decrease of recombination on trapped holes on the supersensitizer after electron injection in the conduction band.

ST hole trapping carbocyanine spectral sensitizer tabular microcrystal photog emulsion; benzoxazole benzimidazole carbocyanine sensitizer supersensitizer photog emulsion hole trapping

IT Absorption spectra

Hole traps

Ionic conductivity

J-aggregates

Photographic sensitizers

Photoinduced energy transfer

(optical and photog. behavior of J-aggregated benzoxazolo carbocyanine sensitizers in presence of low surface concns. of benzimidazolo carbocyanine supersensitizers)

IT Photographic sensitizers
(supersensitizers; optical and photog. behavior of J-aggregated benzoxazolo carbocyanine sensitizers in presence of low surface concns. of benzimidazolo carbocyanine supersensitizers)

IT 151918-31-9, Silver bromide iodide(AgBr0.99I0.01)

RL: TEM (Technical or engineered material use); USES (Uses)

(optical and photog. behavior of J-aggregated benzoxazolo carbocyanine sensitizers in presence of low surface concns. of benzimidazolo carbocyanine supersensitizers)

IT ***39201-42-8*** ***121689-94-9***

RL: PRP (Properties); TEM (Technical or engineered material use); USES

(Uses)

, (spectral sensitizer; optical and photog. behavior of J-aggregated benzoxazolo carbocyanine sensitizers in presence of low surface concns. of benzimidazolo carbocyanine supersensitizers)

IT 28272-54-0 63148-91-4

RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)

(supersensitizer; optical and photog. behavior of J-aggregated benzoxazolo carbocyanine sensitizers in presence of low surface concns. of benzimidazolo carbocyanine supersensitizers)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Berriman, R; Phot Sci Eng 1973, V17(2), P235 CAPLUS
- (2) Muenter, A; IST 50 th Annual Congres Proceedings
- (3) Siegel, J; IST 50 th Annual Congress Proceedings P117
- (4) Simson; Phot Sci Eng 1975, V19, P339 CAPLUS
- (5) Tani, T; J Phys Chem 1992, V96, P2778 CAPLUS

L11 ANSWER 14 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:535537 CAPLUS

DN 131:293189

ED Entered STN: 26 Aug 1999

TI Hole trapping in mixed benzoxazole-benzimidazole carbocyanine spectrally sensitized AgBrI (111) tabular microcrystals

AU De Keyzer, R.; Callant, P.

CS Agfa-Gevaert N. V., Mortsel, 2640, Belg.

SO IS&T's PICS Conference, Annual Conference [of the Society for Imaging Science and Technology], 51st, Portland, Oreg., May 17-20, 1998 (1998), 311-313 Publisher: Society for Imaging Science and Technology, Springfield, Va.

CODEN: 67ZGAU

DT Conference

LA English

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

AB The optical and photog. behavior was investigated of J-aggregated benzoxazolecarbocyanine dyes (1 and 2) in the presence of low surface concns. of benzimidazolecarbocyanine dyes (S1 and S2). Diffuse reflectance spectra of the emulsions and the coatings (DRS) and photog. sensitivity at ***405*** and 535 ***nm*** were exampd. as a function of concn. of the supersensitizing dye and the dye structure on primitive AgBrI (111) tabular crystals. In the absence of the supersensitizing dye a large degree of intrinsic as well as spectral desensitization is detected for dye 1 and 2. The addn. of 1% of the supersensitizing dye (relative to the spectral sensitizer) increases sharply the intrinsic and spectral sensitivity without major changes in the optical absorption spectra of the emulsion. The expts. confirm the importance of supersensitization through energy transfer mechanism but also that one has to take into account a decrease of recombination on trapped holes on the supersensitizer after electron injection in the conduction band.

ST spectral sensitizer supersensitizer cyanine dye photog emulsion hole trapping; benzoxazole benzimidazole carbocyanine spectral sensitizer supersensitizer photog

IT Reflection spectra

Reflection spectra

(UV-visible diffuse; hole trapping in photog. emulsions sensitized with benzoxazole- and benzimidazolecarbocyanine dyes adsorbed on AgBrI(111) tabular microcrystals)

IT UV and visible spectra

UV and visible spectra

(diffuse reflection; hole trapping in photog. emulsions sensitized with benzoxazole- and benzimidazolecarbocyanine dyes adsorbed on AgBrI(111) tabular microcrystals)

IT Hole traps

J-aggregates

Photographic sensitization

Photoinduced energy transfer

(hole trapping in photog. emulsions sensitized with benzoxazole- and benzimidazolecarbocyanine dyes adsorbed on AgBrI(111) tabular microcrystals)

IT Photographic sensitizers

(spectral; hole trapping in photog. emulsions sensitized with benzoxazole- and benzimidazolecarbocyanine dyes adsorbed on AgBrI(111) tabular microcrystals)

IT .155124-15-5, Silver bromide iodide

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(hole trapping in photog. emulsions sensitized with benzoxazole- and benzimidazolecarbocyanine dyes adsorbed on AgBrI(111) tabular microcrystals)

IT 28272-54-0 ***39201-42-8*** 63148-91-4 ***92771-38-5***

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(sensitizer; hole trapping in photog. emulsions sensitized with benzoxazole- and benzimidazolecarbocyanine dyes adsorbed on AgBrI(111) tabular microcrystals)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Berriman, R; Phot Sci Eng 1973, V17(2), P235 CAPLUS
- (2) Muenter, A; IST 50 th Annual Congres Proceedings
- (3) Siegel, J; IST 50 th Annual Congress Proceedings P117
- (4) Simson; Phot Sci Eng 1975, V19, P339 CAPLUS
- (5) Tani, T; J Phys Chem 1992, V96, P2778 CAPLUS

L11 ANSWER 15 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1996:449131 CAPLUS

DN 125:89249

ED Entered STN: 30 Jul 1996

TI Photocrosslinking initiators for improvement of photosensitivity and crosslinking speed

IN Sugita, Shuichi; Kamata, Hirotoshi; Myazaki, Satoru

PA Showa Denko Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F002-50

ICS C08F004-52

CC 42-3 (Coatings, Inks, and Related Products)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 08100011 | A2 | 19960416 | JP 1994-233651 | 19940928 |
| PRAI JP 1994-233651 | | 19940928 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|-------------|-----|------------|
| JP 08100011 | ICM | C08F002-50 |
| | ICS | C08F004-52 |

OS MARPAT 125:89249

GI

/ Structure 15 in file .gra /

AB Photocrosslinking initiators contain (1) pos. ion pigments of D+.A- (D+ = pos. ion which has absorption in the optional wavelength region from visible ray to near-IR ray; A- = neg. ion) and (2) B-based catalysts of Z+.R1R2B-R3R4 [Z+ = pos. ion chosen from pyridinium, quinolinium, diazonium, morpholinium, tetrazolium, acridinium, phosphonium, sulfonium, oxosulfonium, S, O, C, and halogenium, or pos. ion chosen from As, Co, Pd, Cr, Ti, Sn, Sb, and their compds.; R1-4 = alkyl, aryl, allyl, aralkyl, alkenyl, alkynyl, silyl (those groups may be substituted), heterocyclic group, halo; .gtoreq.1 R1-4 = (substituted) silyl]. Thus, a sample contg. pentaerythritol triacrylate-hexamethylene diisocyanate urethane prepolymer 70, nonaethylene glycol diacrylate 30, acetone 30, borate I (.lambda.max 822 nm) 0.1, and Bu4P+.Ph3B-SiPh3 0.3 g was coated on an Al substrate and irradiated with a halogen lamp (having wavelength ***400*** -1200 ***nm***) through a .ltoreq.800 nm wavelength-cut filter for 3 min to give a coating film, which showed double bond residue 33% and the photocrosslinking was almost completed.

ST photocrosslinking initiator pigment; HDI acrylic polyurethane coating

photocrosslinking; nonaethylene glycol diacrylate acrylic polyurethane coating; pentaerythritol triacrylate acrylic polyurethane coating photocrosslinking; boron catalyst photocrosslinking initiator; acrylic polyurethane coating photocrosslinking initiator

IT Coating materials

(photopolymn. initiators contg. pos. ion pigments and B-based catalysts for improvement of photosensitivity and polymn. speed)

IT Urethane polymers, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(acrylic, coatings; photocrosslinking catalysts contg. pos. ion pigments and B-based compds. for improvement of photosensitivity and crosslinking speed)

IT Crosslinking catalysts

(photochem., photopolymn. initiators contg. pos. ion pigments and B-based catalysts for improvement of photosensitivity and polymn. speed)

IT Acrylic polymers, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polyurethane-, coatings; photocrosslinking catalysts contg. pos. ion pigments and B-based compds. for improvement of photosensitivity and crosslinking speed)

IT 125939-08-4 ***141563-94-2*** 141714-54-7 141714-60-5

178952-71-1, Tetrabutylphosphonium triphenylsilyltriphenylborate

178952-72-2, Tetramethylphosphonium triphenylsilyltriphenylborate

178952-73-3, Trimethylsulfonium triphenylsilyltriphenylborate

178952-75-5, Tetrabutylphosphonium (diphenylmethylsilyl)triphenylborate

RL: CAT (Catalyst use); USES (Uses)

(photocrosslinking catalysts contg. pos. ion pigments and B-based compds. for improvement of photosensitivity and crosslinking speed)

IT 176711-04-9P, Hexamethylene diisocyanate-nonaethylene glycol

diacrylate-pentaerythritol triacrylate copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photocrosslinking catalysts contg. pos. ion pigments and B-based compds. for improvement of photosensitivity and crosslinking speed)

L11 ANSWER 16 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1994:68529 CAPLUS

DN 120:68529

ED Entered STN: 05 Feb 1994

TI Detection element for citral and .beta.-ionone.

IN Minami, Katsutoshi; Takazawa, Yosuke

PA Sekisui Chemical Co. Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G01N021-78

CC 80-2 (Organic Analytical Chemistry)

Section cross-reference(s): 27

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------------|-------|----------|-----------------|----------|
| ----- | ----- | ----- | ----- | ----- |
| PI JP 05196575 | A2 | 19930806 | JP 1992-9923 | 19920123 |
| PRAI JP 1992-9923 | | | 19920123 | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|------------------------------------|
| ----- | ----- | ----- |
| JP 05196575 | ICM | G01N021-78 |

GI

/ Structure 16 in file .gra /

AB The title element comprises a thin film of a mixt. of I and dioleoylphosphatidylcholine which adsorbs citral or .beta.-ionone on a substrate which does not emit fluorescence at ***400*** -650 ***nm*** wavelength. Optionally the substrate permeates rays of ***400*** -650 ***nm*** . Citral and .beta.-ionone can be detd. easily optically.

ST detection element citral b  ta ionone
 IT Spectrochemical analysis
 (fluorometric, of citral and .beta.-ionone)
 IT 79-77-6, .beta.-Ionone 5392-40-5, Citral
 RL: ANT (Analyte); ANST (Analytical study)
 (detection of, fluorometric, film of mixt. of
 dioctadecyloxacarbocyanine and dioleoylphosphatidylcholine on substrate
 for)
 IT 68737-67-7, Dioleoylphosphatidylcholine
 RL: ANST (Analytical study)
 (mixt. of dioctadecyloxacarbocyanine and, on substrate, for detection
 of citral and .beta.-ionone)
 IT ***28462-56-8***
 RL: ANST (Analytical study)
 (mixt. of dioleoylphosphatidylcholine and, on substrate, for detection
 of citral and .beta.-ionone)

L11 ANSWER 17 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1993:222743 CAPLUS
 DN 118:222743
 ED Entered STN: 29 May 1993
 TI Color photographic photosensitive material with superior color
 reproduction
 IN Hioki, Katsuhiko; Yagi, Toshihiko; Ito, Yoshiro; Yamada, Yoshitaka;
 Kagawa, Nobuaki
 PA Konica Co., Japan
 SO Jpn. Kokai Tokkyo Koho, 42 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03C007-26
 ICS G03C007-20
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

| FAN.CNT 1 | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------------|----------|----------------|-----------------|----------|
| PI JP 04204442 | A2 | 19920724 | JP 1990-337706 | | 19901129 |
| PRAI JP 1990-337706 | | | 19901129 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|------------------------------------|
| JP 04204442 | ICM | G03C007-26 |
| | | ICS G03C007-20 |

AB The title photog. material having .gtoreq.1 blue-, green-, and
 red-sensitive emulsion layers is characterized in that the highest
 sensitivity wavelength of the spectral sensitivity distribution of the
 green-sensitive emulsion layers is 527.ltoreq. .lambda.Gmax .ltoreq.590 nm
 and the highest sensitivity wavelength of the spectral sensitivity
 distribution of the red-sensitive emulsion layers is 595.ltoreq.
 .lambda.Rmax .ltoreq.640 nm, the Ag halide grains contained in the
 blue-sensitive emulsion layers have a AgCl content >80 mol %, the highest
 sensitivity wavelength of the spectral sensitivity distribution of the
 blue-sensitive emulsion layers is 406.ltoreq. .lambda.Bmax .ltoreq.480 nm,
 and the blue sensitivity at ***410*** ***nm*** is >1/2 that of the
 blue color highest sensitivity wavelength .lambda.Bmax. The color photog.
 photosensitive material shows superior rapid processability and color
 reproducibility.

ST color photog spectral sensitizer dye; silver chloride color photog
 emulsion

IT Photographic emulsions
 (color, silver chloride-based, for superior color reprodn.)

IT Photographic sensitizers
 (spectral, cyanine dyes as, for superior color reprodn.)

IT 63148-97-0 92745-88-5
 RL: USES (Uses)
 (blue spectral photog. sensitizing dye)

IT ***41664-70-4*** ***92771-39-6*** ***139536-86-0***
 146349-85-1 146895-59-2

RL: USES (Uses)
 (green spectral photog. sensitizing dye)

IT 4622-66-6 85238-31-9 93290-07-4

RL: USES (Uses)
. (red spectral photog. sensitizing dye)

L11 ANSWER 18 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1993:179888 CAPLUS
DN 118:179888
ED Entered STN: 01 May 1993
TI Manufacture of silver halide emulsion and color photographic material using the emulsion
IN Asami, Masahiro
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 68 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03C001-035
 ICS G03C001-12; G03C007-20; G03C007-26
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 04230743 | A2 | 19920819 | JP 1991-122948 | 19910426 |
| | US 5230995 | A | 19930727 | US 1991-691277 | 19910425 |
| PRAI | JP 1990-111180 | A1 | 19900426 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|----|------------|-------|---|
| JP | 04230743 | ICM | G03C001-035 |
| | | ICS | G03C001-12; G03C007-20; G03C007-26 |
| US | 5230995 | NCL | 430/567.000; 430/569.000; 430/572.000; 430/574.000;
430/613.000; 430/615.000 |

OS MARPAT 118:179888

AB A method for manufg. a Ag halide emulsion is described, which is virtually free of AgI, comprises AgCl or AgBr contg. AgCl .gtoreq. 90 mol%, and has max. spectroscopic sensitivity distributions at 590-720 and ***390*** -590 ***nm*** . The method involves adding, to a reactor, a sensitizing compd. having the max. spectroscopic distribution at 590-720 nm prior to the addn. of a sensitizing compd. having the max. spectroscopic distribution at ***390*** -590 ***nm*** between the formation of Ag halide particles and the end of the chem. sensitization. Addnl., the method may involve the addn. of a N-contg. heterocyclic compd. A stable emulsion suitable for rapid processing is also described.

ST silver halide photog emulsion sensitizer

IT Photographic sensitizers
(prepn. of emulsions from)

IT Nucleic acids
RL: USES (Uses)

(silver halide photog. emulsions contg.)

IT Photographic emulsions
(color, manuf. of)

IT 73-24-5, 1H-Purin-6-amine, uses 2503-56-2 ***41665-49-0***
102731-88-4 117633-60-0

RL: USES (Uses)
(silver halide photog. emulsions contg.)

L11 ANSWER 19 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1993:164703 CAPLUS
DN 118:164703
ED Entered STN: 01 May 1993
TI Fluorescence-based sensor for bitter taste
IN Minami, Katsutoshi; Takazawa, Yosuke
PA Sekisui Chemical Co. Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G01N021-78
 ICS G01N021-64

CC 9-1 (Biochemical Methods)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------------|------|------|-----------------|------|
|--|------------|------|------|-----------------|------|

PI JP 04340444 A2 19921126 JP 1991-113375 19910517
PRAI JP 1991-113375 19910517

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

JP 04340444 ICM G01N021-78
ICS G01N021-64

OS MARPAT 118:164703

GI

/ Structure 17 in file .gra /

AB A fluorescence-based sensor for the bitterness of a substance (such as quinine) is constructed consisting of a base plate (transparent quartz), a layer of the fluorescent substances I [X = O, S, CMe₂; n = 0-3; such as 3,3'-dioctadecyl-2,2'-thiacyanine], and a lipid thin-layer. A test soln. is placed on the surface and measured at 495 ***nm*** with excitation at ***410*** ***nm***.

ST fluorescence sensor quinine bitterness

IT Bitterness
(detn. of, fluorescence sensor for)

IT Sensors
(fluorescence-based, construction of, for bitter substances detn.)

IT Membranes
(fluorescent and lipid, sensor contg., for bitter substances detn.)

IT Lipids, uses
RL: ANST (Analytical study)
(membrane, sensor contg., for bitter substances detn.)

IT Dyes
(fluorescent, membrane, sensor contg., for bitter substances detn.)

IT 130-95-0, Quinine
RL: PRP (Properties)
(bitterness of, detn. of, fluorescence sensor for)

IT ***34215-57-1*** 53533-50-9, 106853-81-0, 142714-31-6
RL: ANST (Analytical study)
(membrane, sensor contg., for bitter substances detn.)

L11 ANSWER 20 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1993:29845 CAPLUS

DN 118:29845

ED Entered STN: 24 Jan 1993

TI Light-sensitive silver halide color photographic material

IN Shimazaki, Hiroshi; Irie, Yasushi; Yabuuchi, Katuya

PA Konica Co., Japan

SO Eur. Pat. Appl., 37 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM G03C007-30

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI EP 499209 A1 19920819 EP 1992-102269 19920211
R: DE, FR, GB, NL
JP 05040330 A2 19930219 JP 1991-42530 19910214
JP 2926662 B2 19990728
US 5206124 A 19930427 US 1992-832934 19920211

PRAI JP 1991-42530 A 19910214

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

EP 499209 ICM G03C007-30
US 5206124 NCL 430/505.000; 430/502.000; 430/503.000; 430/508.000;
430/957.000

AB A Ag halide color photog. material is described comprising blue-, green-, and red-sensitive layers where the blue-sensitive layer has the max. spectral sensitivity at a wavelength within the range of ***415*** -470

nm and the spectral sensitivity at 480 nm of the blue-sensitive layer is .ltoreq.35% of the max. sensitivity. The green-sensitive layer has the max. spectral sensitivity at a wavelength within the range of 530-560 nm and the spectral sensitivity at 500 nm of the green-sensitive layer is .gtoeq.25% of the max. sensitivity. The material is excellent in reproducibility of the green or blue subjects.

ST blue sensitivity photog film; green sensitivity photog film

IT Photographic films
(color, with improved sensitivity for blue and green)

IT Photographic sensitizers
(spectral, blue and green)

IT ***33628-03-4*** 34141-97-4 90901-34-1 ***114561-83-0***

RL: TEM (Technical or engineered material use); USES (Uses)
(photog. spectral sensitizer)

L11 ANSWER 21 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1993:18692 CAPLUS

DN 118:18692

ED Entered STN: 24 Jan 1993

TI Flow cytometric measurement of lipid peroxidation in vital cells using parinaric acid

AU Hedley, David; Chow, Sue

CS Dep. Pathol., Ontario Cancer Inst., Toronto, ON, M5X 1K9, Can.

SO Cytometry (1992), 13(7), 686-92

CODEN: CYTODQ; ISSN: 0196-4763

DT Journal

LA English

CC 9-5 (Biochemical Methods)

Section cross-reference(s): 13

AB A method for measuring lipid peroxidn. using time resolved flow cytometry is described. Because of its chem. nature, the naturally fluorescent fatty acid cis-parinaric acid is readily consumed in lipid peroxidn. reactions. It could be loaded into Chinese hamster ovary cells in a time and concn. dependent manner at 37.degree., with 5 .mu.M for 60' giving consistent, bright fluorescence without evidence of cytotoxicity. Examn. of cells by fluorescence microscopy showed diffuse staining of surface and internal membranes. Cells were maintained at 37.degree. while being examed. in an Epics Elite flow cytometer equipped with a 325-nm HeCd laser, and parinaric acid fluorescence at ***405*** ***nm*** was measured over time. Addn. of the oxidant tert-Bu hydroperoxide resulted in a burst of intracellular oxidn., shown by simultaneously loading the cells with dichlorofluorescein, and loss of parinaric fluorescence over time. This was followed by cell death, indicated by loss of forward light scatter and uptake of propidium iodide. Pretreatment of the cells with the antioxidant .alpha.-tocopherol, 200 .mu.M, reduced the rate of loss of parinaric acid fluorescence and delayed the onset of cell death. Simultaneous biochem. detn. of the lipid peroxidn. breakdown product malondialdehyde confirmed a close temporal relationship with loss of parinaric acid fluorescence, both with and without .alpha.-tocopherol pretreatment and suggested that the flow cytometric assay for lipid peroxidn. is of comparable sensitivity. The mitochondrial stain dodecyl acridine orange and the cyanine dye DiOC(6)3 were combined with cis-parinaric acid staining and could be excited by the latter using resonance energy transfer. Because these two probes show a degree of organelle specificity, they can be used to measure the loss of parinaric acid due to lipid peroxidn. at defined subcellular sites. Although the authors' own interest in the method is to examine the actions of redox cycling anticancer drugs and the integrity of host antioxidant defenses as a possible mechanism of drug resistance, it appears to be a versatile technique for investigating an important process of cell injury that is difficult to study using std. biochem. assays.

ST flow cytometry lipid peroxidn analysis parinarate; fluorometry flow cytometry lipid peroxidn

IT Staining, biological
(of cells, with parinaric acid, for lipid peroxidn. anal. by flow cytometry)

IT Peroxidation
(of lipids, in cells, flow cytometry and parinaric acid for anal. of)

IT Lipids, biological studies

RL: BIOL (Biological study)
(peroxidn. of, in cells, flow cytometry for anal. of, parinaric acid in)

IT Toxicity
 (cytotoxicity, lipid peroxidn. in, flow cytometry and parinaric acid
 for anal. of)
 IT Cytometry
 (flow, time-resolved fluorometric, for lipid peroxidn. anal. in live
 cells with parinaric acid)
 IT 593-38-4, cis-Parinaric acid
 RL: ANST (Analytical study)
 (for lipid peroxidn. anal. in live cells using flow cytometry)
 IT 41387-42-2 ***53213-82-4***
 RL: ANST (Analytical study)
 (staining by parinaric acid and, for lipid peroxidn. measurements in
 live cells by flow cytometry)

L11 ANSWER 22 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1992:224544 CAPLUS
 DN 116:224544
 ED Entered STN: 31 May 1992
 TI Color photographic light-sensitive material offering excellent hue
 reproduction
 IN Fukazawa, Fumie; Irie, Yasushi; Shimazaki, Hiroshi; Yabuuchi, Katuya;
 Shimba, Satoru
 PA Konica Co., Japan
 SO Eur. Pat. Appl., 135 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM G03C007-30
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reproductive Processes)

| FAN.CNT 1 | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----------|-------------------|------|----------|-----------------|----------|
| PI | EP 434043 | A1 | 19910626 | EP 1990-124806 | 19901219 |
| | R: DE, GB, IT, NL | | | | |
| | JP 03194546 | A2 | 19910826 | JP 1989-334481 | 19891222 |
| | JP 3020105 | B2 | 20000315 | | |
| | JP 03264954 | A2 | 19911126 | JP 1990-63871 | 19900314 |
| | JP 03290658 | A2 | 19911220 | JP 1990-92721 | 19900407 |
| | US 5180657 | A | 19930119 | US 1990-629598 | 19901218 |
| PRAI | JP 1989-334481 | A | 19891222 | | |
| | JP 1990-63871 | A | 19900314 | | |
| | JP 1990-92721 | A | 19900407 | | |

| CLASS | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------|------------|-------|---|
| | EP 434043 | ICM | G03C007-30 |
| | US 5180657 | NCL | 430/503.000; 430/504.000; 430/505.000; 430/574.000;
430/583.000; 430/588.000 |

OS MARPAT 116:224544
 AB A Ag halide color photog. material is described having max. spectral
 sensitivity (λ_B) of the blue-sensitive emulsion layer at
 410 -470 ***nm*** and sensitivity at 480 nm. It is req. 1/2 that at
 λ_B . Preferably, the max. sensitivity wavelength (λ_G) of the
 green-sensitive layer is at 530-560 nm and its sensitivity at 500 nm is
 gtreq. 1/4 that at λ_G . The max. sensitivity wavelength of the
 red-sensitive layer is at 595-625 nm and its max. sensitivity at
 400 -480 ***nm*** is .gtreq. 1.5% of the sensitivity of the
 blue-sensitive layer at λ_B . The material provides high chroma and
 excellent hue reprodn.

ST emulsion photog sensitivity
 IT Photographic couplers
 Photographic sensitizers
 (for excellent hue and color reprodn.)
 IT Photographic emulsions
 (color, for excellent hue and reprodn.)
 IT 80567-35-7 85212-79-9 103576-30-3 107703-70-8 119142-30-2
 RL: TEM (Technical or engineered material use); USES (Uses)
 (photog. coupler)
 IT 4622-66-6 23568-98-1 ***33628-03-4*** 33628-08-9 34141-97-4
 63148-96-9 68392-94-9 85238-31-9 ***114561-83-0*** 139453-99-9
 141231-81-4 141231-82-5

RL: TEM (Technical or engineered material use); USES (Uses)
(photog. sensitizer)

L11 ANSWER 23 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:691007 CAPLUS
DN 115:291007
ED Entered STN: 27 Dec 1991
TI Photographic silver halide materials
IN Takahashi, Toshiro; Okamura, Hisashi
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 34 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03C001-06
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 41

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 02308239 | A2 | 19901221 | JP 1989-130981 | 19890524 |
| PRAI JP 1989-130981 | | 19890524 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|------------------------------------|
| JP 02308239 | ICM | G03C001-06 |

GI

/ Structure 18 in file .gra /

AB The title materials comprise .gtoreq.1 photosensitive silver halide emulsion layers which are spectrally sensitized by a sensitizing dye having max. absorption at 450-580 nm. The said emulsion layers or other hydrophilic colloid layers contain tetrazole deriv. I (R1-R3 = alkyl, amino, acylamino, OH, etc.; x- = anion). The title materials also contain dyes having max. absorption at 300 ***nm*** to ***420*** ***nm*** and .gtoreq.1 redox compds. which release development inhibitors upon oxidn. The use of the title materials gives excellent image reprodn.

ST silver halide photog material; tetrazole deriv photog material; dye photog
IT Photographic emulsions
(tetrazole derivs. for)

IT 1519-55-7 14542-06-4 132952-67-1 136647-76-2
RL: USES (Uses)
(photog. dye)

IT 104497-77-0 104497-80-5
RL: USES (Uses)
(photog. emulsions contg.)

IT 133682-17-4 134282-47-6 136647-77-3 137692-94-5
RL: USES (Uses)
(redox compd., in photog. materials)

IT ***18360-25-3***
RL: USES (Uses)
(sensitizing dye)

L11 ANSWER 24 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1989:182876 CAPLUS
DN 110:182876

ED Entered STN: 12 May 1989
TI Process for the formation of color image and band stop filter used therefor

IN Takahashi, Koji; Shiba, Keisuke; Muramatsu, Yukio; Taguchi, Seiichi
PA Fuji Photo Film Co., Ltd., Japan
SO Eur. Pat. Appl., 157 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM G03C007-26

ICS G03C001-84

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|----------|
| PI | EP 295716 | A2 | 19881221 | EP 1988-109778 | 19880620 |
| | EP 295716 | A3 | 19891123 | | |
| | EP 295716 | B1 | 19941207 | | |
| | R: DE, FR, GB, NL | | | | |
| | JP 01126648 | A2 | 19890518 | JP 1987-285998 | 19871112 |
| | JP 2612176 | B2 | 19970521 | | |
| | JP 02050154 | A2 | 19900220 | JP 1988-148380 | 19880617 |
| | JP 02050155 | A2 | 19900220 | JP 1988-148381 | 19880617 |
| | CA 1339192 | A1 | 19970805 | CA 1988-569832 | 19880617 |
| | US 4880726 | A | 19891114 | US 1988-270712 | 19881114 |
| PRAI | JP 1988-112608 | A | 19870511 | | |
| | JP 1987-150320 | A | 19870618 | | |
| | JP 1987-195222 | A | 19870806 | | |
| | JP 1987-206589 | A | 19870821 | | |
| | JP 1987-285998 | A | 19871112 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|-------------|-------|--|
| | EP 295716 | ICM | G03C007-26 |
| | | ICS | G03C001-84 |
| | JP 02050155 | ECLA | G03C001/825; G03C007/30S |
| | US 4880726 | NCL | 430/376.000; 430/357.000; 430/372.000; 430/383.000;
430/551.000 |

AB A process for the formation of color images comprising printing on a light-sensitive material having a blue-sensitive layer, a green-sensitive layer and a red-sensitive layer on a support from a color print original in a subtractive exposure process, and then substantially subsequently color development, the effective spectral sensitivity distribution of .gtoreq.2 light-sensitive layers in the light-sensitive material are substantially independent from each other in a wavelength band of ***400*** -750 ***nm*** and thereby the av. color mixing degree in each light-sensitive layer is .ltoreq.0.13. The material contains cyanine dyes as spectral sensitizers and is developed in the presence of an ethylene compd. The material has improved fidelity of color reprodn. and high sensitivity.

ST color fidelity photog sensitivity distribution; filter band stop photog material

IT Photographic films

Photographic paper

(color, sensitivity distribution in, for high color fidelity)

IT 23730-61-2 86271-35-4 120152-80-9 120152-81-0. 120152-82-1

RL: USES (Uses)

(photog. color developer contg., for high color fidelity)

IT 4751-25-1 16470-45-4 20517-94-6 60760-51-2 65860-85-7 92991-03-2

98835-00-8 ***99501-48-1*** 108457-44-9 116826-66-5

117541-43-2 119712-73-1 120152-76-3 120152-77-4

120152-78-5 ***120152-79-6*** ***120180-37-2***

RL: TEM (Technical or engineered material use); USES (Uses)

(photog. material contg., with high color fidelity)

L11 ANSWER 25 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1987:25775 CAPLUS

DN 106:25775

ED Entered STN: 24 Jan 1987

TI Dye-sensitized electrophotographic recording material

IN Franke, Werner; Brahm, Richard

PA Hoechst A.-G., Fed. Rep. Ger.

SO Ger. Offen., 20 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM G03G005-09

ICS G03G005-06

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

| | | | | | |
|------|-------------------|----|----------|-----------------|----------|
| PI | DE 3509147 | A1 | 19860918 | DE 1985-3509147 | 19850314 |
| | US 4657836 | A | 19870414 | US 1986-836419 | 19860305 |
| | EP 194624 | A2 | 19860917 | EP 1986-103130 | 19860308 |
| | EP 194624 | A3 | 19880803 | | |
| | EP 194624 | B1 | 19930609 | | |
| | R: DE, FR, GB, NL | | | | |
| | JP 61217051 | A2 | 19860926 | JP 1986-55180 | 19860314 |
| PRAI | DE 1985-3509147 | A | 19850314 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES | | |
|------------|-------|---------------------------------------|--|--|
| DE 3509147 | ICM | G03G005-09 | | |
| | ICS | G03G005-06 | | |
| US 4657836 | NCL | 430/083.000; 430/093.000; 430/095.000 | | |

GI

/ Structure 19 in file .gra /

AB Inorg. and org. electrophotog. photoreceptors, which are sensitive in the ***400*** -700- ***nm*** region, are described. An electrochem. roughened and anodized Al foil was pretreated with poly(vinylphosphonic acid) and then coated with a soln. contg. the pentamethine cyanine dye (I), the trimethinecyanine dye (II), Astrazon Orange R, 2-vinyl-4-(2'-chlorophenyl-5-(4'-diethylaminophenyl)oxazole, maleic anhydride-styrene copolymer, Me glycol, THF, and BuOAc and dried to give a photoreceptor sensitive in the ***420*** -730- ***nm*** region. The photoreceptor was then used to prep. an offset printing plate capable of a high print run.

ST cyanine dye sensitizer electrophotog photoreceptor; inorg photoconductor electrophotog dye sensitizer; org photoconductor electrophotog dye sensitizer; zinc oxide photoconductor electrophotog sensitizer; oxazole photoconductor electrophotog dye sensitizer; oxadiazole photoconductor electrophotog dye sensitizer

IT Electrophotographic sensitizers
(cyanine dyes as, for inorg. and org. photoconductors)

IT Phenolic resins, uses and miscellaneous
RL: USES (Uses)

(electrophotog. photoreceptor with photoconductor layer contg. binder of, spectral sensitization of, dye sensitizer compns. for)

IT Electrophotographic plates
(with sensitivity in visible region)

IT Lithographic plates
(offset, cyanine dye-sensitized laser-sensitive materials for fabrication of)

IT Electric circuits
(printed, cyanine dye-sensitized laser-sensitive materials for fabrication of)

IT 1314-13-2, Zinc oxide, uses and miscellaneous 1679-98-7 22159-33-7
55766-52-4

RL: USES (Uses)
(electrophotog. photoreceptor with photoconductive layer contg., spectral sensitization of, dye sensitizer compns. for)

IT 9011-13-6, Maleic anhydride-styrene copolymer

RL: USES (Uses)
(electrophotog. photoreceptor with photoconductor layer contg. binder of, spectral sensitization of, dye sensitizer compns. for)

IT 3056-93-7, Astrazon Orange G 4208-80-4, Astrazon Yellow 3G 4208-81-5, Astrazon Yellow 5G 4657-00-5, Astrazon Orange R 6359-50-8 25470-94-4
36536-22-8 ***105937-85-7***

RL: USES (Uses)
(spectral sensitizer compn. contg., for electrophotog. photoconductors)

L11 ANSWER 26 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1986:43214 CAPLUS

DN 104:43214

ED Entered STN: 08 Feb 1986

TI Sensitized silver halide photothermographic photosensitive units

IN Shiba, Keisuke; Mihara, Yuji; Okubo, Kinji; Masuda, Takao; Tsuji, Koji

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03C001-28
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 60133442 | A2 | 19850716 | JP 1984-216920 | 19841016 |
| PRAI JP 1984-216920 | | 19841016 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|------------------------------------|
| JP 60133442 | ICM | G03C001-28 |

GI For diagram(s), see printed CA Issue.

AB Ag halide photothermog. photosensitive units contain an org. Ag salt and wurtzite- or zinc blende-structured Ag halide particles (.gtoreq.30 mol% AgI) on which a sensitizer dye selected from I [n = 0, 1; A, B = substituted oxazole, indolenine, thiazole, selenazole or pyridine ring; A, B may be substituted imidazole when n = 0; R, R1 = alkyl, aryl, allyl; Z, Z1, Z2 = (un)substituted methyne; .gtoreq.1 of Z, Z1, Z2 is substituted methyne when n = 1; X- = anion; m = 0, 1], II (p = 0, 1; C = thiazole, thiazoline, oxazole, oxazoline, pyrrolidine, piperidine, imidazole or tetrazole ring; D = thiohydantoin or rhodanine ring; R2 = alkyl, aryl, allyl; Z3, Z4 = methyne), and III [q = 0, 1; E = benzene or naphthalene ring; R3, R4 = alkyl, aryl, allyl; Z5 = NR5 (R5 = aryl), CR6R7 (R6, R7 = CN, alkylcarbonyl, alkoxy carbonyl), imidazole ring, thiazole ring]. The sensitizer dye selected from I, II, and III should have an oxidn. potential of <1 V and an oxidn.-redn. voltage difference of >2 V. Thus, ascorbic acid monopalmitate, methyl Cellosolve, a 8.5% NH4I soln., a 0.2% soln. of dye IV, and a 2% 2-mercapto-3,4-methylthiazole soln. were added to a dispersion contg. poly(vinyl butyral) and benzotriazole Ag salt, the mixt. coated on a polyester film support, and overcoated with a vinyl acetate-vinyl chloride copolymer soln. to give a photothermog. film, which showed spectral sensitivity peaks at ***425*** and 520 ***nm***.

ST photothermog silver halide sensitizer; dye sensitizer photothermog

IT Photothermography
(photosensitive compns. contg. org. silver salt and dye-sensitized silver halide for)

IT 92-69-3 119-39-1 1330-84-3 5351-51-9 7292-14-0

RL: USES (Uses)

(photothermog. photosensitive compns. contg.)

IT 7783-96-2

RL: USES (Uses)

(photothermog. photosensitive compns. contg. dye-sensitized)

IT 2489-05-6 18268-45-6 27527-80-6

RL: USES (Uses)

(photothermog. photosensitive compns. contg. dye-sensitized silver halide and)

IT 28279-05-2

RL: USES (Uses)

(photothermog. photosensitive compns. contg. org. silver salt, silver halide and)

IT 3568-36-3 ***99163-14-1***

RL: USES (Uses)

(sensitizer, for photothermog. photosensitive compns. contg. org. silver salt and silver halide)

L11 ANSWER 27 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1983:225255 CAPLUS

DN 98:225255

ED Entered STN: 12 May 1984

TI Photographic compositions and elements spectrally sensitized with new methine dyes

IN Yamamoto, Yasushi S.

PA Eastman Kodak Co., USA

SO U.S., 8 pp.

CODEN: USXXAM

DT Patent

LA English

IC G03C001-18

INCL 430588000

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 41

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI US 4375508 | A | 19830301 | US 1981-311586 | 19811015 |
| PRAI US 1981-311586 | | 19811015 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|---|
| US 4375508 | IC | G03C001-18 |
| | INCL | 430588000 |
| US 4375508 | NCL | 430/588.000; 430/570.000; 430/580.000; 430/581.000;
430/582.000; 430/585.000; 430/586.000; 430/587.000;
430/592.000 |

GI

/ Structure 20 in file .gra /

AB Methine dyes for use as photog. spectral sensitizers are described. These dyes prep'd. from an intermediate having an acetylenically unsatd. hydrocarbon chain terminated with a nucleophilic group. The acetylenically unsatd. hydrocarbon chain is bonded to a N atom in a heterocyclic ring system of the type used in cyanine dyes. Thus, a photog. support was coated with S-Au sensitized monodispersed gelatin-Ag(Br,I) emulsion (2.5 mol% I) contg. I 8 .times. 10⁻⁴ mol/mol Ag, imagewise exposed, developed in an N-methyl-p-aminophenol/hydroquinone developer, fixed, washed, and dried. The sensitizing max. of the dye I was 600 nm and the sensitizing range 500-630 nm. The speed of the element at ***400*** ***nm*** was 339.

ST methine dye spectral sensitizer photog

IT Photographic sensitizers

(spectral, methine dyes as)

IT 85746-04-9 85746-05-0 ***85746-06-1***

RL: TEM (Technical or engineered material use); USES (Uses)
(photog. spectral sensitizer)

IT 32634-37-0P 85746-00-5P 85746-01-6P 85746-02-7P 85746-03-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(prepn. and reaction of)

IT 1006-99-1 3237-62-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dibromobutene)

IT 2219-66-1

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methylbenzimidazole derivs.)

IT 6992-73-0 35080-47-8

RL: RCT (Reactant); RACT (Reactant or reagent)
(reactions of)

L11 ANSWER 28 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1980:165192 CAPLUS

DN 92:165192

ED Entered STN: 12 May 1984

TI Study of photodegradation of some polymethine compounds

AU Vranchev, D.

CS Plovdiv. Univ., Plovdiv, Bulg.

SO Bulgarian Journal of Physics (1979), 6(5), 561-7

CODEN: BJPHD5; ISSN: 0323-9217

DT Journal

LA Russian

CC 40-7 (Dyes, Fluorescent Whitenning Agents, and Photosensitizers)

Section cross-reference(s): 73

AB In terms of their photodegrdn., related to their durability in lasers, the 9 sym. cyanines studied could be divided into 2 groups: those without meso substituents, photochem. reactions of which occurred in the first excited singlet state, and those with meso substituents, photochem. reactions of

which occurred in the triplet state. Factors affecting the photochem. stability of cyanine solns. included the nature of the heterocyclic nucleus, the length of the polymethine chain, and the nature of the solvent. Upon irradn. of, e.g., 3,3'-diethylthiatricarbocyanine iodide [3071-70-3] in EtOH soln., the principal absorption at 780 nm decreased sharply, absorption at 216 ***nm*** and ***400*** -500 ***nm*** increased, and isobestic points appeared at 300, 350, 375, and 525 nm.

ST solvent effect cyanine photodegrdn; thiacyanine photodegrdn; selenacyanine photodegrdn; laser dye photolytic stability

IT Solvation

(of cyanine dyes, photochem. stability in relation to)

IT Solvent effect

(on photochem. degrdn. of cyanine dyes)

IT Dyes, cyanine

(photochem. degrdn. of, effect of mol. structure and solvent on)

IT Degradation

(photochem., of cyanine dyes, effect of mol. structure and solvent on)

IT ***905-96-4*** 1049-38-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(photochem. degrdn. of)

IT 514-73-8 905-97-5 909-63-7 3065-79-0 3071-70-3 61878-83-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(photochem. degrdn. of, solvent effect on)

L11 ANSWER 29 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1980:85938 CAPLUS

DN 92:85938

ED Entered STN: 12 May 1984

TI Radiographic silver halide sensitive materials

IN Hinata, Masanao; Takei, Haruo; Miyasaka, Nobuaki; Takahashi, Kenji

PA Fuji Photo Film Co., Ltd., Japan

SO U.S., 9 pp.

CODEN: USXXAM

DT Patent

LA English

IC G03C001-92

INCL 096082000

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 4172730 | A | 19791030 | US 1977-787725 | 19770415 |
| | JP 59009891 | B4 | 19840306 | JP 1975-32789 | 19750318 |
| PRAI | JP 1975-32789 | A | 19750318 | | |
| | US 1976-668003 | A2 | 19760318 | | |

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

| | | |
|------------|------|---------------------------------------|
| US 4172730 | IC | G03C001-92 |
| | INCL | 096082000 |
| US 4172730 | NCL | 430/139.000; 430/588.000; 430/966.000 |

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Ag halide radiog. materials for use with fluorescent intensifying screens having a max. emission in the green spectral region wherein .gtoreq.1/2 of the emission energy is in the wavelength range of .gtorsim. ***400*** ***nm*** contain .ltoeq.8.6 Ag/m² and .gtoreq.1 of the emulsion layers therein contain .gtoreq.1 benzimidazolooxacarbocyanine dye with the formula I (R, R₁ = H or halogen; R₂, R₃ = H, halogen, alkoxy, or Ph; R₄, R₅, R₆ = alkyl and .gtoreq.1 of R₅ and R₆ = sulfoalkyl or carboxylalkyl; X⁻ = anion; n = 1,2) and .gtoreq.1 oxacarbocyanine dye with the formula II (R-R₃ = H, halogen, or alkoxy; R₄ = H or lower alkyl; R₅, R₆ = alkyl and .gtoreq. 1 of R₅ and R₆ = sulfoalkyl or carboxylalkyl; X⁻ = anion; m = 1,2). Thus, a blue-tinted poly(ethylene terephthalate) support was coated on both sides with a gelatin-Ag(Br,I) emulsion contg. III 1 .times. 10⁻⁵ mol/kg emulsion and IV 30 .times. 10⁻⁵ mol/kg emulsion at 3.5 g Ag/m². Both emulsions were given a gelatin protective layer and the resultant

finished film was then exposed and developed to show a relative sensitivity of 120 and a modulation transfer function of 0.63 vs. 100 and 0.50, resp., for a control contg. III alone and 93 and 0.55, resp., for a control contg. IV alone.

ST benzoimidazolooxacarbocyanine dye photog sensitizer; oxacarbocyanine dye photog sensitizer; carbocyanine dye photog sensitizer; radiog film carbocyanine dye sensitizer
IT Photographic sensitizers
(benzoimidazolooxacarbocyanine dye-oxacarbocyanine dye mixts. as, for radiog. materials)
IT Radiography
(photog. materials for, sensitized with benzoimidazolooxacarbocyanine dye-oxacarbocyanine dye mixts.)
IT ***48236-39-1*** ***50802-31-8*** ***72741-75-4***
RL: USES (Uses)
(photog. sensitizer combinations contg. oxacarbocyanine dyes and, for radiog. material)
IT ***6099-46-3*** ***6099-52-1*** ***6200-35-7***
RL: USES (Uses)
(photog. sensitizer dye combinations contg. benzoimidazolooxacarbocyanine dyes and, for radiog. material)

L11 ANSWER 30 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1980:50056 CAPLUS

DN 92:50056

ED Entered STN: 12 May 1984

TI Multilayer color photographic paper

IN Taguchi, Masahiko; Mogaki, Katsuo; Nakamura, Shinichi

PA Konishiroku Photo Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC G03C007-20; G03C001-86

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------------|------|----------|-----------------|----------|
| PI JP 54099434 | A2 | 19790806 | JP 1978-5667 | 19780120 |
| PRAI JP 1978-5667 | A | 19780120 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|------------------------------------|
| JP 54099434 | IC | G03C007-20IC G03C001-86 |

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Multilayer color photog. papers possess reflectivity (of the unexposed area after photog. processing) at 570-660 nm, 480-570 ***nm***, and ***420*** - 480 ***nm*** wavelength ranges of .gtoreq. 70%, within +-5% of the reflectivity in the 570-660 nm range, and within +10% of the reflectivity in the 570-660 nm range, resp. The color photog. papers exhibit excellent image clearness. The above requirements can be achieved easily by selecting proper support and photog. coating compns. esp. by properly selecting blue-sensitizing dye and magenta coupler. Thus, a paper support was coated with (1) a polyethylene compn. contg. a white pigment (anatase and rutile type TiO₂ mixt. coated with Al₂O₃) and a bluing agent; (2) a blue-sensitive emulsion contg. .alpha.- (1-benzyl-2-phenyl-3,5-dioxo-1,2,4-triazolidinyl-4)-.alpha.- pivalyl-2-chloro-5-[.gamma.- (2,4-di-tert-amylphenoxy)butyramidolacetanilide (a yellow coupler) and the sensitizing dye I; (3) an intermediate layer; (4) a green-sensitive emulsion layer contg. the magenta coupler II and the sensitizing dye III; (5) a UV-absorber contg. intermediate layer; (6) a red-sensitive layer contg. 2,4-dichloro-3-methyl-6-[.alpha.- (2,4-di-tert-amylphenoxy)butyramidolphenol (a cyan coupler), the sensitizing dye IV, and a fluorescent brightener; and (7) a gelatin protective layer. The photog. paper was developed without exposure to give av. reflectivities of 83, 77, and 76% for 420-480, 480-570, and 570-660 nm wavelength regions, resp.

The photog. paper was then sensitometrically exposed and developed to give relative sensitivity, .gamma.-value, and yellow stain of 260, 3.00, and 0.05, resp.

ST multilayer color photog paper

IT Photographic paper
(color, magenta coupler-blue sensitizer combinations for improved background whiteness for)

IT 31037-84-0

RL: TEM (Technical or engineered material use); USES (Uses)
(photog. cyan coupler)

IT 52026-88-7 54189-02-5 55036-42-5 61853-53-0 61853-56-3
61853-60-9 65756-73-2 69084-83-9 69645-30-3 69645-31-4
69645-32-5

RL: TEM (Technical or engineered material use); USES (Uses)
(photog. magenta coupler)

IT 27930-83-2 28022-99-3 ***29133-39-9*** 51588-85-3 51588-94-4
51588-96-6 55425-27-9 70679-43-5 72395-54-1 72395-55-2
72395-56-3 72395-58-5 72395-59-6

RL: TEM (Technical or engineered material use); USES (Uses)
(photog. sensitizer)

IT 61119-59-3

RL: TEM (Technical or engineered material use); USES (Uses)
(photog. yellow coupler)

L11 ANSWER 31 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1979:178202 CAPLUS

DN 90:178202

ED Entered STN: 12 May 1984

TI Combination of photosensitive elements suited for use in radiography

IN Van Doorselaer, Marcel K.

PA Agfa-Gevaert N. V., Belg.

SO U.S., 14 pp.

CODEN: USXXAM

DT Patent

LA English

IC G03C001-92

INCL 096082000

CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|------|----------|-----------------|----------|
| PI | US 4130429 | A | 19781219 | US 1975-624258 | 19751020 |
| | FR 2205683 | A1 | 19740531 | FR 1973-37511 | 19731017 |
| | FR 2205683 | B1 | 19851227 | | |
| | BE 806384 | A2 | 19740423 | BE 1973-1005447 | 19731023 |
| | GB 1459789 | A | 19761231 | GB 1973-50829 | 19731101 |

PRAI US 1972-303386 A2 19721103

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|------------|----|------------|
| US 4130429 | IC | G03C001-92 |
|------------|----|------------|

| | | |
|--|------|-----------|
| | INCL | 096082000 |
|--|------|-----------|

| | | |
|------------|-----|---------------------------------------|
| US 4130429 | NCL | 430/139.000; 430/966.000; 976/DIG.439 |
|------------|-----|---------------------------------------|

AB A combination suitable for radiog. consists of an x-ray fluorescent screen and a photosensitive Ag halide recording material. The x-ray screen has .gtoreq.50% of its spectral emission > ***410*** ***nm***, with its emission max. at 480-600 nm. The light absorption spectrum of the Ag halide material corresponds with the light emission spectrum of the x-ray screen. The screen contains Y oxysulfide activated with 0.1 to 10% by wt. of Tb or Tb and Dy and Gd or La or Lu oxysulfide activated with Tb or Dy. The Ag halide recording material uses a blue colored and a naphthol- or phenol-contg. emulsion layer.

ST radiog film intensifying screen combination

IT Radiography
(photosensitive elements for, contg. photog. film and phosphor-contg. intensifying screen)

IT Photographic films
(radiog., x-ray image intensifying screen combinations with)

IT 12237-27-3

RL: USES (Uses)
(antihalation layers contg., for radiog. films)

IT 7440-27-9, uses and miscellaneous

RL: USES (Uses)
. (lanthanum oxysulfide doped with, x-ray image intensifying screens
contg., for combination with radiog. films)

IT 53014-12-3 53014-13-4

RL: USES (Uses)
(photog. filter dye, for radiog. film)

IT ***53014-11-2***

RL: TEM (Technical or engineered material use); USES (Uses)
(photog. sensitizer, for radiog. films)

IT 12339-07-0 12340-04-4

RL: USES (Uses)
(terbium-activated, x-ray image intensifying screen contg., for
combination with radiog. film)

L11 ANSWER 32 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1978:107833 CAPLUS
DN 88:107833
ED Entered STN: 12 May 1984
TI Photochemical hydrogen formation by the use of titanium dioxide thin-film
electrodes with visible-light excitation
AU Fleischauer, Paul D.; Allen, John K.
CS Ivan A. Getting Lab., Aerosp. Corp., El Segundo, CA, USA
SO Journal of Physical Chemistry (1978), 82(4), 432-8
CODEN: JPCHAX; ISSN: 0022-3654
DT Journal
LA English
CC 52-1 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 74, 49
AB TiO₂ thin-film electrodes were sensitized to visible light
(.lambda..ltoreq.630nm) with concomitant formation of H at a Pt counter
electrode. A divided cell was used with the sensitizer at ambient pH
(.apprx.4) in the anode chamber and N H₂SO₄ in the cathode side.
Transparent TiO₂ electrodes were made for this process by the
radio-frequency sputtering of .apprx.250-nm thick films on conductive
substrates, i.e., Sn-doped In₂O₃ on glass. Two types of sensitization
process were demonstrated: nonabsorbing supersensitizers were found that
sufficiently amplify photocurrents in reduced TiO₂ films to obtain H with
excitation in the ***400*** -500- ***nm*** region, and true dye
sensitization of the H formation reaction was obtained with a combination
of the supersensitizers and the dye rhodamine B [81-88-9] (.lambda.
500-630 nm). An applied bias voltage (.gtoreq.0.2 V) was necessary for
visual observation of sensitized H formation on the cathode. A
5-film-stacked electrode configuration was designed and used to produce H
at rates of .apprx.0.1 mL/h for .lambda.ex .gtoreq.500 nm and 0.2 mL/h for
.lambda.ex .gtoreq. ***400*** ***nm*** with a 200-W Hg arc lamp.
ST hydrogen manuf photoelectrochem cell; titanium dioxide excitation hydrogen
manuf; oxide titanium excitation hydrogen manuf
IT Electrodes
(photoelectrochem.-cell, titanium dioxide, visible-light excitation of
thin-film, for hydrogen manuf. from water)

IT 13463-67-7P, uses and miscellaneous
RL: PREP (Preparation); USES (Uses)
(electrodes, photoelectrochem.-cell, visible-light excitation of, for
hydrogen manuf. from water)

IT 1333-74-0P, preparation
RL: PREP (Preparation)
(manuf. of, photochem. from water, with visible-light excitation of
thin-film titanium dioxide electrodes)

IT 81-88-9 574-93-6 2321-07-5 3564-18-9 7187-55-5 18403-49-1
20766-55-6 37069-74-2 ***37069-75-3*** 37069-76-4 65147-28-6
RL: USES (Uses)
(titanium dioxide thin-film electrode sensitized with, for hydrogen
manuf. from water)

L11 ANSWER 33 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1977:446551 CAPLUS
DN 87:46551
ED Entered STN: 12 May 1984
TI Radiographic method and sensitive material therefor
IN Hinata, Masanao; Takei, Haruo; Miyasaka, Nobuaki; Takahashi, Kenji
PA Fuji Photo Film Co., Ltd., Japan
SO Ger. Offen., 43 pp.

CODEN: GWXXBX
DT Patent
LA German
IC G03C001-19
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | DE 2614352 | A1 | 19761014 | DE 1976-2614352 | 19760402 |
| | JP 51115820 | A2 | 19761012 | JP 1975-40577 | 19750403 |
| | JP 59009892 | B4 | 19840306 | | |
| | BE 840345 | A1 | 19760802 | BE 1976-165815 | 19760402 |
| | US 4040833 | A | 19770809 | US 1976-672947 | 19760402 |
| PRAI | JP 1975-40577 | A | 19750403 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|--|
| DE 2614352 | IC | G03C001-19 |
| US 4040833 | NCL | 430/139.000; 430/574.000; 430/577.000; 430/966.000;
976/DIG.439 |

GI

/ Structure 21 in file .gra /

AB Radiog. materials for use with intensifying screens having a max. emission at 500 to .apprx. 700 nm with at .gtoreq.1/2 of the emission energy at .apprx. ***400*** ***nm*** contain the cyanine dyes I (R = Et, (CH₂)₃SO₃H.NEt₃, (CH₂)₄SO₃Na; R₁ = Me, Et; R₂ = (CH₂)₂CHMeSO₃-, (CH₂)₃SO₃-, (CH₂)₄SO₃-, (CH₂)₃O₂CMe; X- = anion; m = 1,2) at 1.0 .times. 10-5-1.0 .times. 10-3 mol and II (R = H, Cl; R₁ = Et, CH₂CH:CH₂; R₂ = (CH₂)₂O(CH₂)₂OH, (CH₂)₂O(CH₂)₂O₂CMe; R₃ = (CH₂)₃SO₃H.C5H₁₀NH, (CH₂)₃SO₃Na) at 1.0 .times. 10-5-1.0 .times. 10-3 mol/mol Ag halide. Thus, to a gelatin-Ag(Br,I) emulsion (1.2 mol % AgI; 1.3 .mu. particle size; gelatin/Ag = 0.4; 0.75 mol Ag salt/kg emulsion) contg. 5-methyl-7-hydroxy-s-triazolo[1, 5-a]pyrimidine as stabilizer were added I (R = (CH₂)₄SO₃Na; R₁ = Et; R₂ = (CH₂)₄SO₃-) 6 .times. 10-5 and II (R = H; R₁, R₂ = Et; R₃ = (CH₂)₄SO₃Na) 4 .times. 10-5 mol/kg emulsion and the emulsion coated on a poly(ethylene terephthalate) support at 3.8 g Ag/m². The emulsion was then coated with a gelatin protective layer at 1 g/m², placed between 2 intensifying screens contg. Gd₂O₃, exposed (25 mR), developed, fixed, washed, and dried to show a relative sensitivity of 123 and fog of 0.03 vs. 85 and 0.06 for a control contg. III 6 .times. 10-5 and IV 4 .times. 10-5 mol/kg emulsion.

ST benzoxacyanine dye sensitizer radiog film; spectral sensitizer
benzoxacyanine dye; cyanine dye spectral sensitizer

IT Photographic sensitizers
(benzoxacyanine dye combinations as, for radiographic film)

IT Radiography
(photographic films for, spectral sensitization of, with benzoxacyanine dye combinations)

IT 50663-38-2 53134-50-2 55036-60-7 ***58202-11-2***
63339-62-8 ***63339-63-9*** ***63339-64-0*** 63339-66-2

RL: USES (Uses)
(photographic spectral sensitizer combinations contg., for radiographic film)

L11 ANSWER 34 OF 34 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1973:65200 CAPLUS

DN 78:65200

ED Entered STN: 12 May 1984

TI Sensitization of direct positive photographic emulsions

IN Ohkubo, Kinji; Masuda, Takao; Shiba, Keisuke; Hinata, Masanao; Sato, Akira; Ogawa, Akira

PA Fuji Photo Film Co., Ltd.

SO Ger. Offen., 24 pp.

CODEN: GWXXBX

DT Patent

LA German

IC G03C

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI DE 2164275 | A | 19720713 | DE 1971-2164275 | 19711223 |
| PRAI JP 1970-121455 | A | 19701219 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|------------|----|------|
| DE 2164275 | IC | G03C |
|------------|----|------|

GI For diagram(s), see printed CA Issue.

AB For the prepn. of printing masters with increased contrast from blueprint or diazo copies using Hg lamps with yellow filter, which can be handled in fluorescent room illumination, high sensitivity at 546 and 577 nm and low sensitivity at 366, ***405***, and 436 ***nm*** are desirable. This sensitivity can be provided by 1-50 mg/kg emulsion of indolinoxacarbocyanines, whose action is enhanced by Rh salts. Thus, (NH4)3RhCl6 10 mg was added to 1 kg of an emulsion with AgCl 96 mole %, AgBr and AgI 2% each. The pH was adjusted with Na2CO3 to 8.5 and the emulsion prefogged by heating with 1% aq. HCHO 10 ml for 80 min. After adjustment of the pH to 6 with citric acid, Pinakryptol Yellow 10 mg and 4 mg of I were added. The sensitivity max. was at 545 nm. Handling of the coated product for 40 sec in 50 1x ambient fluorescent illumination and in a darkroom revealed no differences.

ST direct pos photog sensitizer; cyanine sensitizer direct pos

IT Photographic emulsions

(direct-pos., with low uv sensitivity for safe handling under fluorescent light)

IT Photographic sensitizers

(indolinoxacarbocyanine dyes as, for direct-pos. emulsions)

IT 15336-18-2

RL: USES (Uses)

(photog. sensitizers from indolinoxacarbocyanine dyes and, for direct-pos. emulsions)

IT ***1054-00-8***

RL: USES (Uses)

(photog. sensitizers from rhodium salts and, for direct-pos. emulsions)

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(FILE 'HOME' ENTERED AT 15:25:35 ON 08 DEC 2005)

FILE 'STNGUIDE' ENTERED AT 15:25:41 ON 08 DEC 2005

FILE 'HOME' ENTERED AT 15:25:45 ON 08 DEC 2005

FILE 'REGISTRY' ENTERED AT 15:25:55 ON 08 DEC 2005

L1 STRUCTURE uploaded

L2 STRUCTURE uploaded

L3 12 S L1 SSS FULL

L4 3644 S L2 SSS FULL

FILE 'CAPLUS' ENTERED AT 15:26:57 ON 08 DEC 2005

L5 21 S L3

L6 2443 S L4

L7 3 S (OPTICAL OR LASER OR INFORMATION) AND L5

L8 322 S (OPTICAL OR LASER OR INFORMATION) AND L6

L9 25 S L8 AND ((OPTICAL OR LASER OR INFORMATION) (5A) (MED? OR DISK OR

L10 71 S (L6 OR L5) AND (390 OR 395 OR 400 OR 405 OR 410 OR 415 OR 420

L11 34 S (L6 OR L5) AND ((390 OR 395 OR 400 OR 405 OR 410 OR 415 OR 42

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| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 247.77 | 570.91 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|--|------------------|---------------|
| CA SUBSCRIBER PRICE | -45.26 | -45.26 |

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